

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

FEBRUARY 1, 1942

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Picea Orientalis

**Identifying Maples in Winter
Crown Gall on Budded Fruit Trees
Hardy Plants with Variegated Foliage
State Convention Reports**

AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

AT THE CONVENTIONS.

The increased attendance at the state and regional conventions of nurserymen so far this year is for good reason—an alertness to the changed conditions and the problems brought by the country's entry into the war. What these conditions mean to spring sales and how the problems are to be met are questions to which the answers are sought by exchanging views and experiences at trade meetings.

Perhaps it is surprising that expectations with regard to spring sales are so good. Certainly it is to those who saw only dislocation and handicaps in wartime prospects. But older minds realized that home life must go on and human needs must be satisfied even while the nation's main objective is winning the world-wide war for freedom.

While younger men go to military camp or abroad to war, those who remain can do no better than pursue their peacetime objects—to further the nutritive needs of this country's citizens and to make the land of freedom more worth sacrifice because it is more beautiful.

In this land are springing up, and have sprung up, thousands of small homes, so far inadequately provided with suitable surroundings of plants and lawns. These are for the most part occupied by the workers in defense industries—wage earners receiving much larger weekly incomes than they have ever before enjoyed. After they have paid their moderate income taxes they will have a considerable surplus to furnish and beautify these homes. Because restriction on the sale of automobiles and tires will tend to keep the public at home, what is more natural than that they will turn to gardening for relaxation, recreation and enjoyment? This market in itself, the coming spring, will provide many, many orders for nursery stock, small individually but large in the aggregate.

The landscape planters or nurserymen who have dealt with wealthier families fear reduced incomes and increased taxes will curtail this trade.

The Mirror of the Trade

And it may. But the thought is advanced by some that such families will necessarily or by choice forego travel and vacation trips, so finding a desire for continued additions to the garden or estate and perhaps increased interest in it.

The national victory garden program supports the sales arguments of the nurserymen dealing largely in fruit trees and berry plants. Their optimism is easily understood.

Less stress is made in state garden conferences on the value of ornamental plantings for maintenance of civilian morale. So nurserymen have their own sales job in this department, but one that should be not hard of accomplishment.

Handicaps of labor and supplies vary with the locality and the individual firm. They are common to many businesses and must be met as best we can meet them.

Briefly, these are views expressed at the trade conventions. Generally, they breathe an optimism for spring that is heartening when war news is depressing and that is challenging if one has been hesitant.

A-10 FOR INSECTICIDES.

The OPM has granted an A-10 rating to insecticide and fungicide manufacturers for chemicals needed to make their commodities. However, the order specifies that the insecticides and fungicides made and distributed must be used for food production. Copper, lead and certain other minerals, oils, etc., are scarce or are under allocation for defense industries. This order leaves the nurserymen and florists theoretically without a supply of these materials necessary for prevention of pest outbreaks, a prerequisite for interstate shipment on account of quarantines. The office of agricultural defense relations plus the bureau of entomology and plant quarantine can help us in this situation, states R. P. White, executive secretary, in the latest A. A. N. Newsletter to members.

In the meantime, it is wise to follow other methods of pest control, such as cleanup campaigns on any block of material known to have harbored pests in the past, summer con-

trol of weeds and general sanitation measures. Your state inspection officials will really become your friends now. Seek their advice on any pest problem early, before it gets out of hand.

MESSAGE ON MORALE.

From discussions of the national victory garden program in these columns, it should be apparent that the emphasis on ornamental plants as a means of maintaining civilian morale and helping the nation in this time of stress and worry rests on nurserymen, landscape gardeners and other commercial horticulturists.

Already this has been recognized by some firms. Below is the text of a message printed in red and blue on a white sheet of paper enclosed with the 1942 catalogue sent to retail customers by Carroll Gardens, Westminster, Md., associated with the wholesale firm of D. & C. Hardy Plant Nursery, Westminster:

GARDENING FOR PLEASURE AND MORALE.

During these critical times, each and every one of us should, and we will, do everything possible for our country. This means, of course, that we must work and think harder than ever before, but we must have a little relaxation in order to continue our work and do the big job ahead of us.

If a little of this time of leisure could be spent in the garden, it would do a great deal to relieve the nervous strain from our minds. After all, where could a more pleasant and peaceful hour be spent than that of being with your garden flowers?

Why not make this year a bigger and better gardening year, or at least as good as last year? Take care of what you have, replace some of your old favorites that may have died last summer during the drought and, above all, add a few novelties to your collection. Novelties will always arouse interest in your garden. If you do this, many exciting and pleasant moments are in store for you this coming spring, summer and fall.

In closing, let us all join in hope and prayer that 1942 may bring us Victory and long-lasting Peace.

Carroll Gardens,
Westminster, Md.

AS a general rule, seeds of wild species of plants retain their vitality longer than seeds from cultivated plants, according to Forrest Holmes, chief of the Maryland seed inspection laboratory. He says that weed seeds have been known to retain their germinating power forty years after being buried in the soil.

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FROM A COLUMN ADVERTISEMENT

To regular readers it is apparent that the consistent users of large space in the American Nurseryman continue to advertise from year to year, and even increase the size of their copy.

Their experience is a valuable guide to those whose attempts in advertising have been tentative or intermittent. Here's an example:

We have been using the American Nurseryman rather extensively during 1941 as a medium to offer our stock to the trade, and I wish to tell you that the results we have had are very good. Your paper certainly has a good circulation, as we have had orders from practically every state in the Union.

It is our hope that we shall be able to continue using the American Nurseryman, and to increase the space we have been using as time goes on.

Wishing you and your staff every success in 1942, I am,

Charles Hess, Hess' Nurseries, Mountain View, N. J.—January 2, 1942.

Identifying Maples in Winter

By Leon Croizat

While a family of plants usually consists of several to many different groups of related trees, shrubs or herbs, the maples (known to botanists as *acer*) stand out pretty much alone in a family of their own. Their only close relative is said to be *Dipteronia sinensis*, and this is but a mite in the plant kingdom, a single species not to be compared with *acer* either in fullness of range or in horticultural importance. Another proud claim of the maples is their antiquity; these trees grew when the world was young, and the leaves they shed forty million years ago into the mud of rivers now turned into stone are surprisingly like the outline of the leaves of our living trees.

As ornamentals, the maples have a privileged place, too. The foremost authorities on horticulture record not less than fifty-six of them known at this time in cultivation. This figure could probably be rounded up to something like a hundred if we should include the species that are too tender with us to stand anything but the climate of Florida. The maples, as a matter of fact, adapt themselves surprisingly well to different climatic conditions. Some of their kind live in moist woods in the tropics; others thrive in dry and rocky surroundings in countries like central Asia where the summers are blazingly hot and the winters bitterly cold, and even others range far up north, in swamps, where their flowers are every year nipped by late frosts. Some maples are large trees; others are shrubs, and there is a species of them available for any purpose on earth, as stock to be clipped into hedges or as specimens to be grown for shade or for beauty of foliage and color.

An experienced horticulturist should be able to recognize at least ten maples both in leaf and in the bud. These maples are *Acer campestre*, *A. platanoides*, *A. saccharum*, *A. pseudoplatanus*, *A. palmatum*, *A. japonicum*, *A. rubrum*, *A. saccharinum*, *A. negundo* and *A. tataricum*.

Eleven other species occasionally planted have horticultural merits, which suggests that they should be

The considerable number of maple species in cultivation requires that nurserymen have knowledge of a fair proportion of them. Here is told how to recognize them by their buds and winter characters in general, by an expert in plant identification at the Arnold Arboretum.

known at least as to their names. These species are *Acer mono*, *A. diabolicum*, *A. griseum*, *A. nikense*, *A. pennsylvanicum*, *A. heldreichi*, *A. trautvetteri*, *A. opalus*, *A. monspessulanum*, *A. circinatum* and *A. miyabei*.

The others of the maples reported in cultivation are rather specimens and oddities than legitimate stock for nurseries. Some of these plants may be locally well known, nevertheless, on account of the efforts of some firm which has made a specialty of raising and selling them. This is especially true of the so-called Japanese maples, which consist of several closely related species and can easily be propagated by seeds, yielding many leaf forms and color forms. A surprisingly large number of these plants were originally introduced into this country by the old nurserymen of Flushing, N. Y., who had them straight from China and Japan.

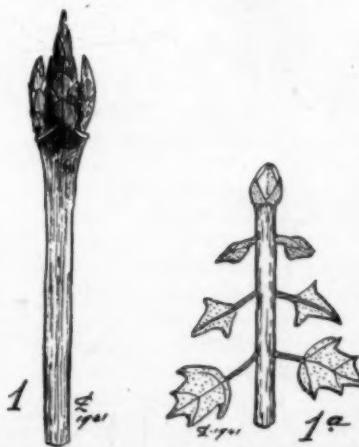


Figure 1. Many-scaled bud of the sugar maple. Figure 1a. Sketch to show how the leaves of a maple gradually become changed into bud scales.

I hope to give a short account of the common maples in leaf in some separate article. Here I shall deal with their buds and with their winter characters in general. As is well known, the maples have opposite leaves. Since the bud scales correspond to leaves, it is obvious that a maple bud, too, has opposite bud scales; that is, bud scales that do not run in spirals, but face each other in pairs. Since, once again, a bud may be compared with a much shortened twig, it follows that the bud scales have a tendency to incase the tip of the branchlet when the leaves are opposite. How this happens can easily be understood by taking a glance at figure 1a, which illustrates how the leaves of a maple turn into bud scales at the tip of the twig. The same thing takes place in other plants with leaves that face each other in pairs—ashes, lilacs and honeysuckles, for instance. The azaleas are an exception to this rule, as we shall see later.

The study of plants, be it done for business or for pleasure, can be as fascinating as the best detective story if only we know how to go at it. The immense number of trees and shrubs, the incredible variations in their leaves, flowers and fruits unfold before our eyes at first a mysterious tale the like of which no fiction writer can think of. As we get hold of this mystery and begin to pour over the clues that promise to unravel it, we slowly come to the realization that common sense can be used as well in studying nature as in trying to emulate Sherlock Holmes on a spy hunt. Nothing happens in the weeds at the bottom of a pond or in the leaves at the crown of the highest ash that is haphazard and without its reason. One thing follows the other with the regularity of coils in a spring, and the trickiest stunts of nature are those which in the long run are seen to be the simplest and most direct—taking a cone of a pine, for instance, and making of it a cherry or a lily with a few sly changes.

To understand the significance of

plant parts, be these parts leaves, fruits, flowers or buds, we must be able to grasp their structural possibilities. By structural possibilities I mean, in plain words, that which a part of a plant can do when it is being modified in detail. Since we live in a mechanical age, tinkering with plumbing, typewriters, guns and automobiles, all of us can easily understand the point. Let us suppose, for instance, that we stand before a cottage and that this cottage has been built according to certain specifications, calling for a floor, two rooms and a front porch. Taking this kind of building as the starting point, we may consider adding to it another floor and two rooms on each wing of the ground floor, taking away at the same time the front porch. Changes of this kind are compatible with the original layout of the building. They may require bracing here and there, but they are but additions and modifications of the original plan of construction. Step by step, if we so wish, we can build up and modify the previous structure to the point of having it in the end transformed into something that does not look at all like its beginning. In conclusion, every one of these changes is a structural possibility, something that can be done to improve or change a preexisting structure, one thing being built upon the other.

Nature works just the same way. She takes in hand a leaf, twists it,

folds it, makes it longer or shorter, cuts away its blade and keeps its stem, hammers it into a needle, a bud scale or anything she likes. We could understand her work easily if our lives were not so short; nothing seems to move before our eyes, all springs being the same and all winters resembling each other on the average. But if we could look on for thousands of years, rather hundreds of thousands of years, we should be amazed how fast nature works.

Let us now go back to the buds of the maples and see what their structural possibilities are. We can take our clue from a bud like that of the sugar maple, for instance (figure 1), which has several rows of scales. It is structurally possible to suppose that these several rows of scales dwindle to two rows or three at the most, in which case we will see before our eyes the bud of the Norway maple (figure 2). We may go further and visualize a second structural possibility, all scales disappearing except the first row. This leaves us facing two scales that close, one against the other, as jointed and cupped hands, quite like the bud of the moosewood (figure 3). It would be pretty difficult to recognize in winter as plants of the same kind the sugar maple and the moosewood, but anybody who knows how the one is derived from the other shrugs his shoulders. Well, what is so amazing in all this? Knock out a few scales,

change their color and there you have the bud of the sugar maple or that of the moosewood. Nature does not work on thin air; she feeds on something, too.

The so-called red maples have buds of their own (figure 4). These buds are clustered at the tip of the branchlets, the topmost and central one being a leaf bud, the side ones being, on the contrary, flower buds. This arrangement, thinly disguised, appears in the box elder (figure 5), too, but in this species, the flower-bearing buds are, as a rule, not more than two. At a glance it would seem that the peculiar bud arrangement of the red maple is altogether unlike that of the Norway maple. The truth is somewhat different; in a Norway maple the tip bud alone incases that which the box elder takes three separate buds to cover. The tip bud of a mature shoot of the Norway maple covers a central cluster of flowers with two side eyes that will later grow into shoots. The box elder, on the contrary, puts the shoot in the center and sets the flower clusters on the side, giving to each its complement of scales (figure 6) as separate buds. All this may sound like idle chatter. It is sound truth, on the contrary, for it explains why we shall never find a red maple bearing two buds at the tip of the branchlet with a dried stem (the original flower cluster) between them, why the box elder al-

[Concluded on page 9.]

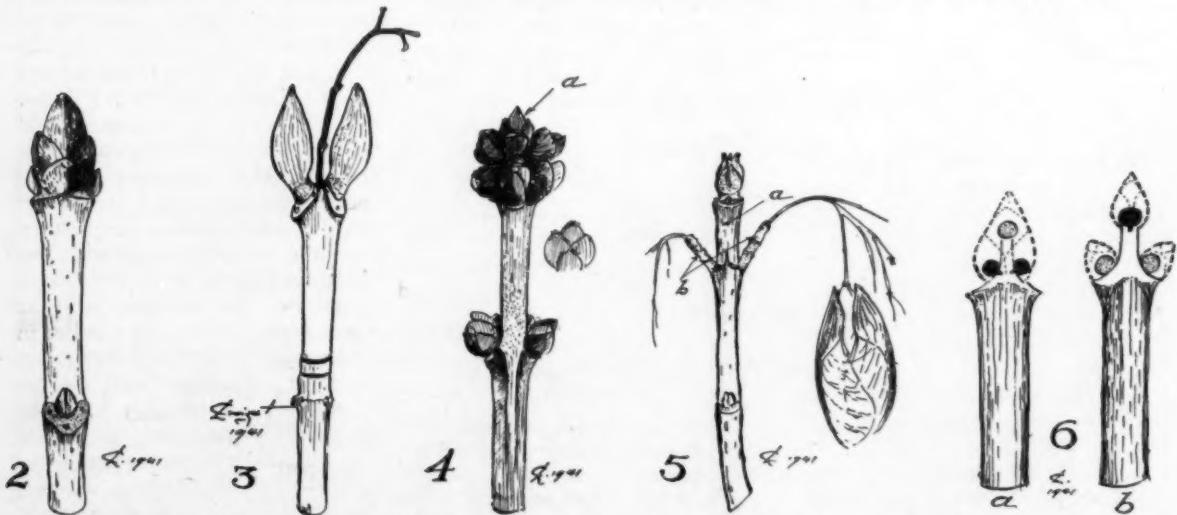


Figure 2. Bud of the Norway maple with three rows of scales. Notice the lower small bud with only two scales. Figure 3. Bud of the moosewood with two rows of scales. Side view with only one scale showing. Figure 4. Bud of the red maple. The central bud (a) bears only leaves and shoots, but no flowers. Figure 5. Bud of the box elder, with lateral fruits. The part of twig (a) grew from a central bud; the flowers and fruit from lateral buds (b). Figure 6. Arrangement of the "eyes" in the Norway maple (a) and in the box elder (b). In the Norway maple all the "eyes" stand within one bud, the top one yielding flowers, the lateral one shoots without flowers. In the box elder the "eyes" are incased each by its own bud, the upper bud yielding a shoot without flower, the lateral ones flowers.

Crown Gall on Budded Fruit Trees

By E. A. Siegler and J. J. Bowman

Crown gall caused by the bacterial organism *Pseudomonas tumefaciens* (S. & T.) Duggar is the most important disease on nursery fruit trees in the United States. For over half a century more fruit trees undoubtedly have been discarded on account of crown gall infections than for any other disease. Reliable information as to the economic losses in the United States resulting from this disease has never been obtained. To secure accurate data, it would be necessary for surveys to be made in the various nurseries in the United States during the very short period in which the nursery trees are being dug. It is well known, however, that losses of forty to fifty per cent in many nurseries are not uncommon and that even greater losses occasionally occur.

The economic losses are important because such a large percentage of nursery trees are affected and because the disease is so widespread, occurring as it does in practically all sections where nursery trees are grown. The losses are especially serious because of the expense involved in growing the affected trees in the nursery for two or three years before they are dug. The diseased trees cannot be detected and discarded until digging time, when an inspection of the root system can be made.

Few plant diseases have received as much attention from investigators in various parts of the world as has crown gall. Of the many phases of the problem that have been investigated, however, relatively few have been of direct interest to nurserymen. Notwithstanding the voluminous literature on the subject, comparatively few comprehensive investigations have been made on control measures. Those control measures that have been reported, in general, have been the result of limited experimentation and most of them either have not stood the test of time or have not been put into practice by nurserymen.

In recent years a number of recommendations have been made for the control of crown gall and other malformations on nursery trees. Some

interested nurserymen, it is hoped, will this coming spring test the experimental measures for control of crown gall on fruit tree seedlings lined out as for budding tried at the United States Department of Agriculture, horticultural station, Beltsville, Md.

of these measures are undoubtedly highly desirable and have become fully established in practice; other recommendations appear promising and require testing under commercial conditions, while still others have afforded but little relief. In the absence of inspection and surveys of nurseries during the digging season, it is obviously impossible to present a factual picture of the nurseries over the country, but from personal contacts and correspondence it appears that the question of knots on fruit trees is still of major importance.

The nurserymen would welcome control measures that will eliminate knots of all types on all species of nursery plants. There is little prospect of this. Even disregarding the insect problems, there are too many different causal agencies involved. The problem of eliminating knots cannot be attacked en masse, but will have to be taken apart piecemeal. Before proceeding to the main purpose of this article it is necessary to lay a background in sufficient detail for one to visualize the extent to which crown gall and other factors are concerned in the general situation.

The crown gall organism causes most of the malformations encountered on fruit trees in the United States, but in some regions, particularly on bench-grafted apple, infectious hairy root malformations are important, and on many varieties wound overgrowth due to incompatibility between scion and rootstock is an important factor. Combination knots of the above types are also frequently encountered.

The progress that has been made during the past ten or fifteen years toward a solution of the more practical aspects of the problem of mal-

formations has been due mainly to the following:

- Establishing the fact that the malformations on root-grafted apple trees are caused by several different agencies, viz., the crown gall organism, the hairy root organism, wound overgrowth, or a combination of any of these three. Erwin F. Smith (1), as early as 1911, recognized the differences between the crown gall organism and what he termed the hairy root strain of this organism. Later, the senior writer (2) fully confirmed Smith's work and demonstrated that the hairy root strain was specific and distinct in its reaction on apple and on several test plants, such as tobacco and tomato. This differentiation between these organisms was further confirmed by Riker et al. (3), who correctly classified them as distinct bacterial species.

- The recognition that the so-called simple form of hairy root on apple is noninfectious (4) and that these malformations obviously are in an entirely distinct category from the infectious type of hairy root caused by the bacterial organism (*Phytomonas rhizogenes* Riker et al.).

- The recommendation by Riker, et al., and the subsequent common use, among nurserymen, of the tape wrap for apple grafts.

- The recommendation (5) that seedlings suspected of being contaminated with the hairy root organism or the crown gall organism be disinfected with bichloride of mercury before grafting.

- The recognition (6) of the effect of soil reaction on the severity of crown gall infection.

- The partial control of crown gall obtained by treating peach pits with calomel (7).

- The possibility of controlling crown gall on older peach trees in the orchard by treatments with chemicals, particularly Elgetol (8).

- The recent report (9) on crown gall control on roses by crop rotation.

The chief purpose of this article is to report on experiments to control crown gall in certain kinds of seedling nursery stock intended for budding

In our earlier attempts to control this disease on fruit tree seedlings lined out for budding, the use of a mercuric chloride (corrosive sublimate) dip was not successful. During the past two seasons mercurous chloride (calomel) has been used, singly and also in conjunction with a mercuric chloride treatment. Because experimental results with the use of calomel have been very promising thus far, they are reported here so that nurserymen who may be interested may test this treatment this season.

In 1940, 1-year fruit tree seedlings of the following were used: Apple, pear, plum (Myrobalan), Mazzard and Mahaleb cherry. These seedlings were divided into lots of 100 each and given the following treatments:

- Lot A. Mercuric chloride and later mercurous chloride (calomel U.S.P.). Planted in crown gall infested soil.
- Lot B. Mercuric chloride and later mercurous chloride. Planted in soil practically free from the crown gall organism.
- Lot C. No treatment. Planted in crown gall infested soil. Root-pruned when lined out.
- Lot D. No treatment. Planted in soil practically free of the crown gall organism. Root-pruned when lined out.

The treatments for lots A and B were as follows:

1. Seedlings were washed in water to remove the surface dirt.
2. Dipped in mercuric chloride (1 part to 10,000 parts water, i.e., one standard tablet to ten pints water) for several seconds.
3. Allowed to become surface-dry; then they were root-pruned as for lining out.
4. Stored for callusing for approximately six weeks.
5. Dipped at planting time in a suspension (kept thoroughly stirred) of mercurous chloride (calomel, U.S.P. grade) at the rate of one pound to eight gallons water. This suspension was used repeatedly without renewal. The seedlings were then allowed to become surface-dry and were lined out immediately.

The results for the lots planted in infested soil are given (in part) in table 1. It will be observed that the amount of crown gall occurring on the untreated apple and pear seedlings was too small for the test to have practical significance. The same conclusion may be true for the result with Mahaleb cherry. The seedlings of all lots planted in soil practically free of the crown gall organism were practically free from infection and the data are not included in the table. A marked reduction in the amount of crown gall was obtained in the treated lots of Myrobalan plum and

Mazzard cherry seedlings that were planted in soil infested with the crown gall organism.

In 1941 the experiments were varied somewhat from those of 1940. All of the seedlings were planted in crown gall infested soil and the bi-chloride of mercury dip was not used on the Mazzard cherry seedlings. The experimental lots of fifty trees each were replicated three times; the results obtained were uniform in all four lots. The pertinent data are given in table 2. Data on Mahaleb cherry and pear seedling are not given because the number of infected trees was too small for the test to be considered significant; apple seedlings were not included in this 1941 test.

In evaluating the results of these experiments, it seems desirable to place most emphasis on the number of clean trees that were obtained in the various lots; this viewpoint takes into consideration the reduction in

stand as a result of the calomel or of the mercuric chloride and calomel treatment. The unusually adverse growing conditions, particularly in the early spring of 1941, undoubtedly made for greater injury in the treated lots than might be anticipated in normal or even slightly adverse growing seasons. Consideration should also be given to the fact that in all experiments the seedlings were dug the first year after planting, i.e., not as yearling buds.

The results of the two seasons' experiments indicate that about sixty per cent more clean plum and Mazzard seedling trees were obtained as a result of these treatments. Figures 1 and 2 are typical examples of the clean trees and the crown gall infected trees, respectively, in these experiments.

It is perhaps unnecessary to emphasize that these treatments need further testing before they can be

TABLE 1. RESULTS OF TREATMENTS FOR CROWN GALL CONTROL ON FRUIT TREE SEEDLINGS IN 1940, PLANTED IN INFESTED SOIL (100 seedlings per lot).

Kind of seedlings	Treatment	Stand (per cent)	Condition at digging		Percentage clean trees obtained ¹
			Number clean trees	Number trees with crown gall	
Apple	Mercuric chloride and calomel	98	98	0	98
Apple	None	99	95	4	95
Pear	Mercuric chloride and calomel	94	94	0	94
Pear	None	97	91	6	91
Myrobalan plum	Mercuric chloride and calomel	87	76	11	76
Myrobalan plum	None	81	37	44	37
Mazzard cherry	Mercuric chloride and calomel	91	86	5	86
Mazzard cherry	None	92	65	27	65
Mahaleb cherry	Mercuric chloride and calomel	90	81	9	81
Mahaleb cherry	None	100	84	16	84

¹ Based on total of 100 seedlings treated in each lot.

TABLE 2. RESULTS OF TREATMENTS FOR CROWN GALL CONTROL ON 1-YEAR PLUM AND CHERRY SEEDLINGS IN 1941, PLANTED IN INFESTED SOIL (200 seedlings per lot).

Kind of seedlings	Treatment	Stand (per cent)	Condition at digging		Percentage clean trees obtained ¹
			Number clean trees	Number trees with crown gall	
Myrobalan plum	Mercuric chloride and calomel	81	156	5	78
Myrobalan plum	None	94	96	92	48
Myrobalan plum	Calomel	73	140	6	70
Mazzard cherry	None	89	92	85	46
Mazzard cherry	Calomel	84	158	10	79

¹ Based on total number treated.

unqualifiedly recommended as a control measure. The treatments should be subjected to tests in commercial nurseries. It is suggested that those nurserymen who may be interested should make preliminary tests by treating a small percentage of their seedlings. If five per cent of the seedlings are treated and the treated seedlings lined out in various parts of the field at intervals among the nontreated seedlings, a reading on the efficacy of the treatments should be readily obtained. In sections of the country where some difficulty in obtaining good stands is experienced under normal conditions, it might be advisable to omit the treatment with mercuric chloride (this is step 2 in the list of five steps given under the experimental treatments), even though this advice is somewhat contrary to our experimental results. The chemicals may be secured from druggists or direct from wholesale supply houses. The cheapest grade (i.e., U.S.P.) of calomel should be used; one pound of this material, at the present wartime price of about \$3, should be sufficient to treat about 25,000 No. 2 seedlings.

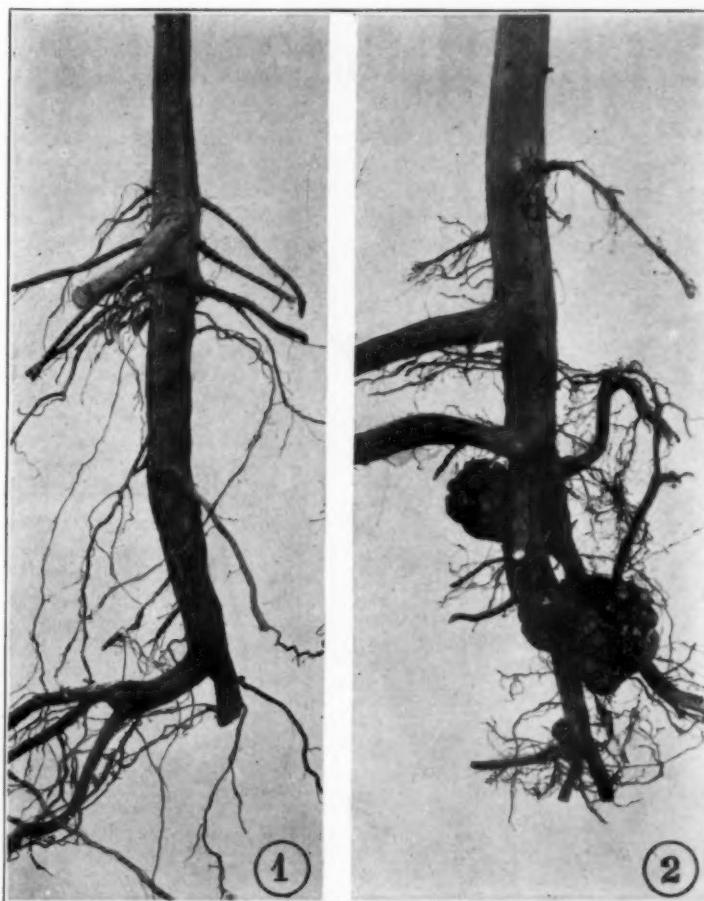
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TWIN CITY GROUP ELECTS.

At the January meeting of the Twin Cities Nurserymen's Association, at Wade's restaurant, Minneapolis, Minn., election of officers, carried over from last month, resulted in the choice of Edmund E. Johnson, Rose Hill Nursery, Minneapolis, president; Morton Arneson, Evergreen Gardens, Minneapolis, vice-president, and John G. Nelson, R. L. Gould & Co., St. Paul, secretary-treasurer. R. L. Gould was elected a board member for the next term.

J. Juhl, Hoyt Nursery, St. Paul, introduced the matter of a new class



Myrobalan plum seedlings dug one year after lining out. Figure 1.—Typical of the clean trees. Figure 2.—Typical of the crown gall trees.

for nurserymen at the 1942 state fair. The new class is planned to bring before the public the value of evergreens for the home and at the same time acquaint visitors with the various types and their names. After discussion, it was decided to eliminate the competitive idea and put up a larger group of evergreens, properly arranged, in a more favorable location in the Horticultural building.

The March meeting of the association will be held, if possible, at the Como park greenhouses, St. Paul, during the Easter flower show.

IDENTIFYING MAPLES IN WINTER.

[Concluded from page 6.]

ways carries its fruit clusters at the side of the twig, why a branchlet of maple with two buds at the tip is taken from a mature tree and not from a sapling that does not as yet bear flowers. If, in addition to learning these points, we take in our stride the arrangement of the scales, learn-

ing which maples have two scales rather than eight and what color are these scales, we are set; we shall get some orderly picture out of the confused array of the buds of these plants, seeing how one pattern is worked into another, never losing our step in going from one to the other.

It stands to reason that this is the only way of mastering in short order large numbers of trees in winter, to break them up into groups, finding out their structural possibilities and characteristic marks. Life is too short and nature is too big for us to beat around the bush. In the next installment we shall see the details of the bud of the most important maples.

TAKING his family south for a vacation, Clarence O. Siebenthaler, of the Siebenthaler Co., Dayton, O., is dividing his time at Mexico City between seeing the sights and keeping "Bud" and Nancy up with their school work.

Long Island Meeting

Held in conjunction with the annual meeting of the Long Island Nurserymen's Association, the annual meeting of the eastern region of the American Association of Nurserymen, at the Garden City hotel, Garden City, N. Y., January 22, was highly successful, being attended by more than 100 persons.

Following the business session of the Long Island Nurserymen's Association in the morning and a luncheon meeting of A. A. N. chapter 18, the regional meeting was opened in the main ballroom with welcoming remarks by G. Clifton Sammis, president of the Long Island association, and by Peter M. Koster, president of the chapter.

Charles Hess, chairman of the eastern regional group, gave a short talk, and Cornelius Van Tol reported as secretary.

Richard P. White, A. A. N. executive secretary, spoke at length on "Nursery Problems Raised by the War." He reported on the anticipated shortage of some supplies and equipment and told of the nurserymen's part in war effort, through protective concealment plantings and the national victory garden program.

His talk was followed by that of Frank S. LaBar, executive committee member from region 1 and vice-president of the A. A. N., on "The Nursery Industry under a War Economy." He pointed out the reaction upon sales in various types of nurseries and the necessity of a strong organization in such times.

The guest speaker of the day was Carl F. Wedell, head of the school of horticulture of the State Institute at Farmingdale, N. Y., and executive committee member of the Civilian Camouflage Council. One of the first courses in camouflage work in this country was given at that school, and hence the topic, "Camouflage and the Use of Plant Material," was treated in an able and authoritative manner.

During the business session there was much discussion of the Japanese beetle quarantine and the desirability of its removal as a measure of wartime economy. Arsenate of lead will be higher priced, if not scarce, imposing a hardship on nurserymen

who are required to apply it at the rate of 1,300 pounds per acre. Both the federal and several state governments spend considerable sums annually on the control of the pest, which nevertheless continues its spread. A resolution finally was adopted, in which the members of the Long Island chapter presented the matter to the executive committee of the national organization for consideration and possible action.

PICEA ORIENTALIS.

Picea orientalis, the Oriental spruce, is one of the most beautiful of all the spruces. Native of Caucasus and Asia Minor, it is said to attain a maximum height there of 100 feet or

more. In this country it is of slow growth, forming a compact pyramidal tree with short, blunt, crowded and lustrous dark green leaves, almost completely covering the twigs. It retains its lower branches better than the other spruces with the possible exception of the Serbian spruce, which is one of the few spruces I should consider superior to it.

The Oriental spruce does best in rich, moist, but well drained soil and in partially protected situations. It is somewhat susceptible to winter injury when fully exposed to winter sun and wind.

Because of its slow growth it is adapted to use on small properties as a specimen.

L. C. C.

BEFORE induction into service, Corp. Norman H. Cannon, Camp Lee, Va., was a representative of Esham's Nurseries, Frankford, Del.

Eastern Association

The Eastern Nurserymen's Association met at luncheon at the Hotel Hildebrecht, Trenton, N. J., January 27 for its annual business session and discussed its primary problem, the Japanese beetle quarantine.

Presented by Frank LaBar, A. A. N. executive committee member for the eastern region, the resolution adopted by the Long Island chapter at the regional meeting the preceding week, urging the rescinding of the federal beetle quarantine, received no immediate action, because only eleven of the twenty-five member firms were represented. It was voted to canvass the members as to their opinion on this subject and to call a special meeting, about June 1 or earlier, to consider the resolution in the light of the information then developed.

Meanwhile, the quarantine committee was instructed to confer with the Department of Agriculture officials at Washington, D. C., as to lightening the burden on nurserymen in the restricted area, in view of the expected scarcity and high cost of arsenate of lead.

The chairman of that committee, William Flemer, Jr., reported that as a result of its members' trip to Washington last year the requirement for soil treatment was reduced from 1,500 to 1,300 pounds per acre. Since only

500 pounds per acre is used to treat infested areas found in states outside the beetle zone, it was believed the requirement placed on eastern nurserymen is excessive.

The nominating committee, consisting of Flemer Foulk, Edwin Hoyt and Frank LaBar, recommended the re-election of the officers, who are: President, John Humphreys, Andorra Nurseries, Philadelphia, Pa.; vice-president, L. C. Bobbink, Bobbink & Atkins, East Rutherford, N. J., and treasurer, Albert F. Meehan, Thomas B. Meehan Co., Dresher, Pa. The secretary, Russell Harmon, LaBar's Rhododendron Nurseries, Stroudsburg, Pa., was re-elected by the executive committee.

Elected to the executive committee for two years were Charles Hess, Hess' Nurseries, Mountain View, N. J.; Eugene Muller, De Kalb Nurseries, Norristown, Pa., and Ed Cositch, Hicks Nurseries, Inc., Westbury, L. I., N. Y. William Flemer, Jr., Princeton Nurseries, Princeton, N. J., and Edwin Hoyt, Stephen Hoyt's Sons Co., New Canaan, Conn., are the holdover members.

Since the association retains its ample bank balance, it was voted to purchase defense bonds with \$750 from its funds.

Landscape Talks at Rochester

For the annual meeting of the New York State Nurserymen's Association, held January 16 at the Hotel Rochester, Rochester, H. T. Maxwell, Geneva, president, and L. J. Engleson, Newark, chairman of the program committee, arranged a program that drew many besides the regular attendants.

After a few words of welcome, President Maxwell read a letter from H. B. Tukey, assistant secretary-treasurer, and then appointed a nominating committee. L. J. Engleson, chairman of the executive committee, gave a short report, pointing out the importance of belonging to the association. He particularly urged that all nurserymen of the state give support to a bill now pending which will amend the white-pine blister rust law. This amendment will make it possible for each county to appropriate funds for Japanese beetle control, a measure of particular interest to the nursery industry. He concluded his remarks by reading a note from R. P. White, secretary of the American Association of Nurserymen.

C. J. Maloy, Rochester, secretary-treasurer, then reported on the financial status of the association.

Much interest this year was given to landscaping questions. Prof. Joseph P. Porter, of Cornell University, Ithaca, interestingly described how the different periods bring about changes and how these changes affect the nurseryman. The trend to useful plant materials and avoidance of the showy and spectacular become more and more pronounced in landscape work. Pointing out that there are really no good examples of small landscape projects, he urged strongly that education and fundamental application of art are the best ways to increase plant sales. Although realizing that it is not easy to teach people, Professor Porter pointed out that by creating and demonstrating enjoyable surroundings, useful and beautiful, the landscape planter or nurseryman will best be able to satisfy his client and help to obtain new customers.

Prof. Thomas J. Baird, of Cornell University, pointed out how difficult it is for the layman to visualize a

garden from a working drawing. His remarks were of particular interest to those whose job it is to sell plants and planting ideas. With a few square blocks of various sizes, a piece of white cardboard, a few little branches and pins, he demonstrated different planting arrangements for a home, the blocks being the house, the cardboard the lot and the branches the trees. With a pencil, roadways and special planting areas were easily drawn in wherever needed. On completing such a simple model, the speaker, with the use of a light, then demonstrated which

the protective concealment effort initiated by the government. He pointed out that nursery stock was a vital part of this effort. Although he warned that shortage of labor may cause a great hindrance, he strongly urged that all nurserymen should be behind programs such as the national victory garden program and should now make use of this in their advertising.

Dr. A. B. Buchholz, director of the bureau of plant industry, department of agriculture, Albany, reported on improvements in interstate relations, stating that nineteen states no longer charge fees for out-of-state shipping permits, eighteen states have reciprocal agreements and sixteen states have license fees. He believed that the Japanese beetle situation did not at present warrant any particular emphasis on new quarantines. Some hope of eventually controlling this pest through the dissemination of parasites, bringing about the milky disease in the Japanese beetle grub, was expressed. Regulations in regard to virus diseases of peaches are still in effect, and again co-operation with nursery inspectors and eradication of *Prunus virginiana* in fence rows and the keeping of all stone fruits away from hedge rows were strongly urged. The Dutch elm disease, still present in certain sections of the state, can be kept in check by state control. Efforts in the control of this disease are centered in controlling the elm bark beetle, the known carrier of the disease.

W. J. Maloney, Dansville, in a paper read by his son, opened a discussion of what happened to the nursery business during and after World war I. He recalled that during the last war nurseries put in big plantings without reckoning on the shortage of help. This in Mr. Maloney's opinion was one of the great mistakes which broke or nearly broke many firms financially. He advised moderate planting. Other members who took part in this discussion were John A. Kusse, of Brown Bros. Co., Rochester; A. N. Christy, Newark; Charles H. Perkins, Newark; C. J. Maloy, Rochester, and Horton Bowden, Geneva. All pointed out difficulties through shortage of labor,



Henry T. Maxwell.

areas were shaded from the sun. In all, the demonstration was most effective and could give any client a better picture of what his garden will be.

The morning session ended with group meetings. Discussions were led by John Kelly, Dansville, on catalogues; Carl Boone, Geneva, agencies; R. L. Holmes, Newark, production, and Schuyler Arnold, Coldwater, landscape and sales gardens.

After a luncheon, at which F. Johnson, Dansville, found himself the winner of the door prize, Frank LaBar, vice-president of the American Association of Nurserymen, spoke with optimism about the place the nursery industry should have in

rapidly rising labor cost and losses through great delay of shipments. It seemed to be the unanimous opinion that the real drop in business took place right at the end of the war. However, members of the discussion group expressed optimism and predicted that business during this emergency would be as large as anyone could handle.

Dr. C. E. F. Guterman, assistant director of the experiment station, Cornell University, informed the nurserymen that some research projects will be dropped to make way for those more directly concerned with the war effort, and he foresaw emphasis on experiments for the development of dehydrated vegetables and concentrated foods for army consumption. He also reminded his listeners of possibilities of fertilizer, fungicide and insecticide shortages and difficulties in replacements of farm machinery, and he urged a more efficient use of machinery and fertilizers.

Dr. E. M. Hildebrand in his talk on the cherry virus disease, cherry yellows, warned that young trees produced from diseased buds may never become productive trees. He pointed out that leaves of diseased trees drop early in summer, and at budding time little of the symptoms of the disease may be present. According to Dr. Hildebrand, cherry yellows can be easily controlled by destroying trees showing the disease symptoms and by not cutting budwood from bearing orchards. The disease was found to be absent where budwood had been taken from young nursery trees.

In a short business session after the program, Harry Glen, Rochester, was elected president, succeeding Henry T. Maxwell. Elected vice-presidents were: R. L. Holmes, Newark; Howard Maloney, Dansville; William Pitkin, Jr., Rochester, and Schuyler Arnold, Coldwater. C. J. Maloy was again elected secretary-treasurer, and H. B. Tukey, assistant secretary-treasurer. H. T. Maxwell became chairman of the executive committee, and A. N. Christy, Newark, chairman of the general legislative committee.

A question-and-answer period after the meeting served not only to solve technical and professional questions, but also gave a humorous note to the gathering, which was much appreciated by all present. Karl D. Brase.

Massachusetts Meetings

The thirty-third annual convention of the Massachusetts Nurserymen's Association was held at the Hotel Kenmore, Boston, January 13. Attendance was the largest in many years.

President Cornelius Van Tol, Falmouth, in his annual message, stressed the importance of the nurserymen's coöperating in these times. Secretary-treasurer L. A. Hathaway gave a full report.

Prof. Harold Tiffany, of the Waltham field station, made his report on experiments conducted at that station. Some of this information will soon be published in pamphlet form.

Howard Russell, secretary of the Massachusetts Farm Bureau, emphasized the desirability of doing repair work now so as to allow plenty of time to obtain repair parts. He pointed out that no skilled labor would be available, that taxes would not be helpful and that credit may not be too good. He suggested that the nurserymen play up the relaxation of gardening, which in England has been found to be important as a morale builder. He also suggested that they devote some of their land to vegetable growing.

One of the high lights of the session was the talk and demonstration by Lieut. Ralph E. Ketchum, camouflage officer of the harbor defenses of Boston. Lieutenant Ketchum had his detail of eight noncommissioned officers to assist in this demonstration. He pointed out the need and value of camouflage and spoke of the tremendous difficulties which are sometimes encountered. An encouraging note to the nurserymen was the fact that the camouflage section of the army is laying special emphasis on the use of nursery-grown stock for this purpose.

Over seventy sat down to the annual luncheon, which was followed by a brief and interesting speech by A. W. Lombard, of the department of agriculture.

Opening the 2 o'clock session, Mark Galusha, commissioner of the department of agriculture, spoke briefly, assuring the nurserymen of his assistance at all times.

The horticultural quiz, which was

conducted by Cornelius Van Tol as schoolmaster, with teams consisting of Peter Mezitt, Marinus Van der Pol, Milford Lawrence, Walter Stranger and Harlan P. Kelsey for the employers, and of James Feronnetti, George Rose, A. Dexter Davis, Clifford Packard and Ed Mezitt for the employees, produced a good deal of merriment as well as information. At the finish it was found that the employers were 1/30 of a point ahead. This was followed by an interesting Kodachrome slide forum.

The following officers were elected for 1942: President, Winthrop H. Thurlow, West Newbury; vice-president, Clifford Corliss, Ipswich; secretary-treasurer, L. A. Hathaway, North Abington. The executive committee includes Lester Needham, Peter Mezitt, Milford Lawrence and Kenneth Gillett.

Union Agriculture Meeting.

In spite of the cold weather, a small but enthusiastic audience attended the lectures sponsored by the Massachusetts Nurserymen's Association, at the Union Agriculture Meeting, Worcester, Thursday, January 8.

President Cornelius Van Tol was taken suddenly ill and was unable to attend. Prof. Harold S. Tiffany, of the Waltham field station, was an able substitute and spoke on "Hardy Perennials." This was followed by a talk by the secretary on "National Parks."

At 2 o'clock, Donald Wyman, of the Arnold Arboretum, gave an extremely interesting talk on "Color in the Landscape." The question period and subject matter were so interesting that he was kept on the floor for over an hour and one-half.

This was the first year the association had had a program of this kind at Worcester. It is planned to have a similar program another year.

THE heavy snow which fell in Nebraska in December has about disappeared into the ground, now unfrozen. So the soil is in better condition than at any time in the past eight years, according to E. H. Smith, president of the Harrison Nursery Co., York, Neb., who is anticipating a good growing season and an increase in business.

Better Standards Report at Trenton

Reflecting the current direction of interest, the peak attendance at the annual meeting of the New Jersey Association of Nurserymen, at Trenton, January 27 and 28, occurred at the closing session, to hear the talk on camouflage by Maj. Peter Rodjenko, assistant to the corps area engineer, in charge of protective concealment, at second corps area headquarters.

Well over 100 persons were in the ballroom of the Hotel Hildebrecht for this address—twice as many as met in the other business sessions. Major Rodjenko spoke on the nurserymen's part to be played in protective concealment, through furnishing stock, as well as in planting industrial projects. He asserted fancy specimen stock would not be wanted, but rather stock native to the locality of the planting, available in large quantities and cheap. From slides with which he illustrated his talk, the immensity of some jobs already done by the army was apparent, as well as the huge number of trees, shrubs and vines used in them.

From his diagrams the objectives in camouflage plantings were made clear. He pointed out that not plants alone, nor any other one material, would complete a protective concealment scheme. In some cases, he said, maintenance of the natural appearance of the surroundings would be as important a part of nurserymen's work as the planting. This applied to camouflaging industrial areas, factories and the like. This work, he said, would be carried out under the direction of the army engineer corps.

The relation of weather forecasting to war, as well as to agricultural operations, was brought out in a talk on "New Jersey Weather Facts," by Dr. Erwin R. Biel, of the New Jersey agricultural experiment station, at the same session.

Excellent Local Talent.

Two talks by members rounded out this interesting concluding session. Robert W. Eisenbrown, of Bobbink & Atkins, discussed "The Nurseryman's Job in Advertising," in general terms. He felt that nursery-

men too frequently lacked confidence in advertising, treated it as something extraordinary and expected too much from a single undertaking. Copy, he said, should be the simple message of the nurseryman, whose business is most frequently the reflection of his personality, anyway; it should be just what he wants to say to his customers. The mailing list Mr. Eisenbrown regarded as of first importance; it should be made up of customers and those who had called, telephoned or otherwise inquired about the nurseryman's merchandise or service. In the type of mailing list that could be purchased, even of supposedly garden-minded prospects,



Walter M. Ritchie.

he had little faith. Repetition is important in advertising, he said, urging that something be sent out from time to time, even if only some old circulars, for the prior mailing will have been forgotten by the recipients.

Under current conditions, said Mr. Eisenbrown, advertising is especially important. The public will have money to spend for spring planting, but we must go after it. Institutional or group advertising he recommended just now as a means of telling the public the part gardening plays in the maintenance of civilian morale. Besides, he said, there will be a hereafter, a time after the war, when all businesses will seek their old customers, and it is not wise to let

them forget us meanwhile. Touching on the labor problem, he suggested advertising as a means of meeting this, by using inches of space, instead of lines, in local help wanted advertisements, to attract workers with offers of healthful outdoor work at pleasant tasks.

The discussion on the labor and supply situation, by Russell M. Bette, of the Princeton Nurseries, was made brief because of the late hour. Suggestions to meet the labor problem included employing women for light work such as weeding and potting, using boys and older men, mechanizing operations as much as possible, handling the digging of small orders more economically and using more bare-root stock instead of balled-and-burlapped. In reference to supplies, he called on Dr. Clyde C. Hamilton, entomologist at the New Jersey agricultural station, who said insecticide and fungicide manufacturers had been alarmed by the prospect of shortages of materials, but it now seemed likely that those nurserymen used would be available. The early scarcities, he said, would be in mercuric, phenol and chlorine compounds, formaldehyde and tartar emetic.

Election.

Ending the meeting, the election of officers resulted as follows: President, Walter M. Ritchie; first vice-president, Arthur Levick; second vice-president, Kurt Meyer; treasurer, August Kindsgrab; executive committee members, Charles Hess, William Wells, Jr., and Roland de Wilde, Jr.

It was voted to invest \$375 of the association's funds in defense bonds.

Committee Reports.

The brief morning session that opened the convention, January 27, was given over to reports. Treasurer August Kindsgrab listed in detail receipts and disbursements the past year of both the general fund and the two special legislative funds, reporting a current balance of about \$1,500 altogether. His careful conduct of his office won him a rising vote of thanks and a demand that the executive committee make payment for his services

according to the by-laws adopted last year.

Otto Bergman, for the membership committee, reported four new members and two recent applications, raising the roster to sixty-six.

An uneventful year was noted by the vigilance, arbitration and legislative committees.

The committee on state nurseries deferred its report until afternoon, when William Wells, Jr., stating that no revised figures as to state nursery costs of production had been received since the department of conservation has submitted data a year ago deemed incomplete or inaccurate, offered a resolution requesting the department to sell its stock at prices representing its full cost and, if unable to do so at a lower figure than are commercial nurseries, to discontinue the sale of such stock, which consequently is provided at a loss to general taxpayers.

For the committee on better standards of landscape planting, George Jennings read a brief statement preparatory to fuller treatment of the subject the following day.

President's Message.

President Walter M. Ritchie's official address opened the afternoon session, January 27. He reviewed the work of the association during the past year, touching on the co-operative advertising campaign, the passage of the act extending the mechanics' lien law to cover nurserymen, the victory in the state supreme court in the Dreer case on the exemption of nursery employees as agricultural labor under the unemployment compensation law and the present fight against the taxing of growing nursery crops as personal property in the Bobbink & Atkins case. He touched on some national problems, which were further discussed in a message, read by Secretary Pirone, from Richard P. White, executive secretary of the national association.

This was supplemented by a more extensive report on the many activities of the American Association of Nurserymen on the following day by Frank S. LaBar, executive committee member for the eastern region.

Advertising Campaign.

Charles Hess, chairman of the advertising campaign committee, reported that some delay in plans had been caused by a question whether

state funds would be available this year. Now the campaign is ready, \$1,950 to be provided by the state and \$1,600 by the nurserymen, the latter through the sale of stock as last year. He urged that members immediately give attention to compiling their own mailing lists. Last year members provided part of the mailing list and the advertising agency added to it.

Introduced by Mr. Hess, Leslie Bromfield, of the advertising firm handling the state's agricultural campaigns this year, showed layouts and read the copy of the spring circulars prepared. He also emphasized the



George Jennings.

importance of the mailing list, asserting that a simple circular mailed to a good list was better than an expensive process-color circular sent to a poor list.

Five mailing pieces are planned for this year, and it was voted to send out two in spring and three in autumn. Of each piece 15,000 copies will be mailed.

At the close of the session, Fred D. Osman again conducted the sale of stock to raise funds. Some stock was donated by members. Others donated the commission on listed items of stock if sold. About \$1,100 toward the advertising fund was raised in the sales during the convention.

Banquet.

The banquet in the evening was featured by the presentation of a gold watch to Harry Wagner, New Jersey winner in the national 4-H home grounds beautification contest, by

K. W. Ingwalson, state leader of 4-H club work, and by the presentation of a citation for meritorious service to John I. Sipp, for many years garden editor of the Newark Evening News, by Fred Osman on behalf of the association.

Some exceedingly instructive motion pictures on tree diseases were shown by Dr. P. P. Pirone, plant pathologist at the state college of agriculture.

In the absence of orchestral music, Robert Eisenbrown performed generously at the piano and Paul Hoverman led the singing of popular ballads.

Better Planting Standards.

The morning session, January 28, was given over almost entirely to the committee on better standards in landscape planting, which submitted its third report. George Jennings, chairman, showed colored slides that referred to last year's review of a model landscape operation and included new pictures of commendable work. Ben Blackburn then showed some slides of good jobs and bad.

In the committee report which he read, Mr. Jennings said:

"Your committee has reported at length on the subject of better standards of planting. We have stated that present-day homes costing less than \$10,000 indicate that builders, buyers and owners have learned to appreciate better architectural design, improved conveniences and better furnishing, but that appreciation of and desire for better planting seems to be passively latent. Nurserymen have been blamed in some quarters for this low-priced and low-grade planting, which seems to be the rule rather than the exception. Your committee believes that we are not entirely to blame. Underlying the fact that the nursery industry is trailing far behind the home builder, home conveniences and furnishings industries in bringing to market its wares and services is the basic fact that the nursery industry, at least as at present organized, does not seem to lend itself to the extensive and expensive educational promotional work which seems to be necessary to mold passively latent interest into eager desire for better planting."

"Among the firms doing landscape planting, there do not seem to be any imaginative enough and powerful

[Continued on page 40.]

HILL EVERGREENS

... For Lining Out ...

Those of us who can remember back to 1917 will remember that the nurserymen who planted choice ornamental stock during that period were able to benefit from the peace-time planting boom which followed. Is there any reason to doubt that similar conditions will again prevail? Plant abundantly now of the better varieties of ornamental Evergreens and be ready for the planting demand which is sure to follow.

		Each Per		Each Per			
		100	1000	100	1000		
Maidenhair Tree	x 8 to 10 ins.	\$0.05	\$0.04	White Spruce	xx 10 to 12 ins.	\$0.14	\$0.12
Chinese Juniper	o 8 to 10 ins.	.06	.05	Black Hill Spruce.....	xx 6 to 8 ins.	.10	.09
Chinese Juniper	o 10 to 12 ins.	.07	.06	Black Hill Spruce.....	xx 8 to 10 ins.	.14	.12
Keteleer Juniper	Grafts	.28	.25	Black Hill Spruce.....	xx 10 to 12 ins.	.16	.15
Pfitzer Juniper	xx 6 to 8 ins.	.15	.14	Norway Spruce	xx 10 to 12 ins.	.14	.12
Pfitzer Juniper	xx 8 to 10 ins.	.20	.17	Norway Spruce	xx 12 to 15 ins.	.17	.15
Pfitzer Juniper	xx 12 to 15 ins.	.35	.32½	Picea excelsa argentea			
Pfitzer Juniper	xx 15 to 18 ins.	.50	.....	spicata	xx 8 to 10 ins.	.20	.....
Hill Golden Pfitzer Juniper	Grafts	.28	.25	Pyramidal Norway Spruce..	xx 8 to 10 ins.	.15	.....
Hill Golden Pfitzer Juniper	xx 6 to 8 ins.	.14	.13	Tigertail Spruce	x 6 to 8 ins.	.10	.09
Hill Golden Pfitzer Juniper	xx 12 to 15 ins.	.35	.32½	Colorado Spruce	xx 8 to 10 ins.	.14	.13
Blue Column Chinese Juniper	Grafts	.28	.25	Colorado Spruce	xx 10 to 12 ins.	.18	.16
Blue Sargent Juniper.....	Grafts	.28	.25	Limber Pine	xx 8 to 10 ins.	.12	.....
Green Sargent Juniper.....	Grafts	.28	.25	Hill Mugho Pine.....	x 3 to 4 ins.	.06	.05
Vase-Shaped Prostrate Juniper	Grafts	.28	.25	Hill Mugho Pine.....	xx 4 to 6 ins.	.17	.15
Andorra Juniper	xx 8 to 10 ins.	.20	.17½	Hill Mugho Pine.....	xx 6 x 6 ins.	.25	.....
Spiny Greek Juniper.....	x 4 to 6 ins.	.12	.10	Scotch Pine	xx 10 to 12 ins.	.17	.15
Spiny Greek Juniper.....	xx 6 to 8 ins.	.16	.15	Scotch Pine	xx 12 to 15 ins.	.20	.18
Spiny Greek Juniper.....	xx 8 to 10 ins.	.20	.17½	Douglas Fir	xx 10 to 12 ins.	.18	.16
Waukegan Juniper	x 6 to 8 ins.	.10	.09	Douglas Fir—Snowy			
Japanese Juniper	Grafts	.28	.25	Mountain	xx 8 to 10 ins.	.22	.20
Hill Japanese Juniper.....	Grafts	.40	.....	Douglas Fir—Snowy			
Bar Harbor Juniper.....	x 6 to 8 ins.	.10	.09	Mountain	xx 10 to 12 ins.	.25	.22½
Von Ehron Juniper.....	Grafts	.28	.25	Upright Japanese Yew.....	x 6 to 8 ins.	.12	.10
Von Ehron Juniper.....	xx 8 to 10 ins.	.15	.14	Spreading Japanese Yew	x 4 to 6 ins.	.08½	.07½
Chandler's Silver Juniper..	Grafts	.28	.25	Spreading Japanese Yew	xx 8 to 10 ins.	.22	.20
Silver Glow Juniper.....	Grafts	.28	.25	Brown's Yew	x 6 to 8 ins.	.22	.20
Meyer Juniper	Grafts	.28	.25	Hill Pyramidal Yew.....	x 4 to 6 ins.	.12	.10
Juniperus virginiana, dk. green	Grafts	.28	.25	Hill Pyramidal Yew.....	xx 8 to 10 ins.	.27	.25
Redcedar	o 6 to 8 ins.	.03½	.03	Hick's Yew	x 4 to 6 ins.	.08	.07
Redcedar	xx 12 to 18 ins.	.06	.05	Hick's Yew	xx 8 to 10 ins.	.18	.16
Burk Redcedar	Grafts	.28	.25	Taxus Media No. 1.....	x 4 to 6 ins.	.12	.10
Cannart Redcedar	Grafts	.28	.25	American Arborvitae	xx 12 to 15 ins.	.15	.14
Cannart Redcedar	xx 18 to 24 ins.	.60	.....	Hill Pyramidal Arborvitae	x 4 to 6 ins.	.09	.07
Silver Redcedar	Grafts	.28	.25	Hill Pyramidal Arborvitae	xx 10 to 12 ins.	.18	.16
Silver Redcedar	xx 15 to 18 ins.	.50	.....	Hill Pyramidal Arborvitae	xx 18 to 24 ins.	.35	.32½
Jun. virginiana horizontalis	Grafts	.28	.25	Ware Arborvitae	xx 12 to 18 ins.	.22	.20
Hill Dundee Juniper.....	Grafts	.28	.25	Woodward Arborvitae	x 4 to 6 ins.	.09	.07
Hill Dundee Juniper.....	xx 12 to 18 ins.	.50	.....	Woodward Arborvitae	xx 10 to 12 ins.	.20	.18
European Larch	o 6 to 8 ins.	.03	.02	Hemlock	x 4 to 6 ins.	.07	.06
European Larch	xx 2 to 3 ft.	.30	.27½	Hemlock	xx 8 to 10 ins.	.20	.17½
Japanese Spurge	x 6 to 8 ins.	.06	.05	Hemlock	xx 10 to 12 ins.	.25	.23
Japanese Spurge	x 8 to 10 ins.	.07	.06				

25 of the same variety and size at 100 rate; 250 at the 1000 rate. Each x indicates one transplanting; o indicates seedlings. Spring wholesale catalogue now ready for mailing. Dealer's descriptive catalogue, 60 color plates of Evergreens, no prices shown, 50c per copy.

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DUNDEE, ILLINOIS

Discussions Feature Indiana Meeting

With a program that featured discussions from the floor rather than speakers, the Indiana Association of Nurserymen held interesting sessions January 21 and 22 at the Hotel Antlers, Indianapolis, the eighth annual meeting of the organization.

Having been confined to his home for three weeks, President Homer L. Wiegand only called the meeting to order and delivered a brief message, turning the chair over to Vice-president Merle B. Esterline, who presided thereafter.

At the closing session Mr. Esterline was elected president for the ensuing year, Floyd Bass was elected vice-president and Kenneth Randel was reelected secretary-treasurer, as recommended by the nominating committee.

Harry Hobbs and Carl Haas were reelected to the executive committee, the other members being A. B. Cunningham, Victor Judson and Floyd Bass.

Scott McCoy, botany teacher at Arsenal technical schools and director of the Holliday park botanical gardens, gave an interesting talk on varieties of oaks at the morning session January 21, displaying herbarium specimens so that members might acquaint themselves with the leaf and acorn characteristics of the less familiar species.

Paul Ullman, state nursery inspector, talked on the subjects before the recent National Plant Board meeting and on pests and diseases that may become problems for Indiana nurserymen.

High lights of the recent meeting of the Illinois State Nurserymen's Association were reported by Harry Hobbs and Alex Tuschinsky.

First of the discussions was one on landscape practices, led by E. B. Palmer, who gave his view on how relations between landscape men and nurserymen, as well as with the public, might be improved. The preparation of plans, guaranteeing stock and free service after planting were three topics most generally discussed. Discussions on guarantees at subsequent sessions led finally to the appointment of a committee, consisting of Alex Tuschinsky, E. B. Palmer and

Floyd Bass, to consider recommendations as to a standard practice and report to the executive committee as early as possible in regard to its adoption. Similarly, a committee on credits extended by wholesale nurserymen to landscape men was referred to a committee, with Ollie Hobbs as chairman, to report at next summer's meeting.

Alex Tuschinsky read a discussion on roadside marketing, at which he has been conspicuously successful. The growing interest in this type of selling was apparent by the questions asked and the experiences reported. Mr. Tuschinsky thought that the retail sales ground or roadside market

the speeding of industry will put unusual sums of money into the pocketbooks of the class of persons who spend most readily. While their purchases individually may be small, the aggregate business to be done is likely to be large.

Vice-president Esterline read a message on "The Nurserymen and War Conditions" from Richard P. White, executive secretary of the American Association of Nurserymen, mentioning problems to be faced in labor and supplies and the sales outlook as affected by camouflage operations, national nutrition and the victory garden program.

In the evening, the banquet was followed by a short address by Willard Crain, Cincinnati, O., past president of the Florists' Telegraph Delivery Association. He told of the growth of that strong organization and of its present efforts in national advertising. Afterward the film on gardening prepared by the American Agricultural Chemical Co. was shown through the courtesy of the company's local representative, T. H. Jeffery.

Next morning, Mr. Jeffery spoke to the members about the instructive literature prepared by the company, including mimeographed instructions on feeding nursery stock, care of broad-leaved evergreens and turf cultivation and also a handsome illustrated booklet suitable for passing out to customers to give them instructions on garden care.

H. N. Engledow, of the Mid-Western Tree Experts, Indianapolis, led a discussion on shade trees. The information he gave from his attendance at the National Shade Tree Conference was valuable to members. Their questions and comments were numerous. He expressed his belief that mulching is the most important operation in moving large trees, and he usually spreads manure about a foot deep over the area occupied by the tree roots. The question was raised whether wrapping with paper was sufficient protection against sunscald and borers or whether a board shelter on the south and west side of the trunks of full bark trees is not more successful.



M. B. Esterline.

should be in a separate location or sufficiently away from the nursery, particularly if evergreens are handled, so that the field stock will not compete with customers' attention for that already dug and awaiting sale. Several speakers favored this or similar means to avoid the necessity of taking customers through the fields, especially at a busy time.

Invited to speak on his impressions as to nurserymen's prospects for spring business, as gained from association meetings he had previously attended, F. R. Kilner, editor of the American Nurseryman, Chicago, stated that he had found the trade in the middle west quite optimistic as to coming spring business and firms in other parts of the country hardly less so. Increased employment caused by

Spring 1942 Wholesale Planting List

NORTHERN-GROWN SEEDLING AND TRANSPLANT STOCK GROWN FROM CERTIFIED SEED

PITCH PINE		AMERICAN RED PINE		RED SPRUCE				
Excellent hard pine timber.	Per 100 Per 1000	One of the best for both timber and Christmas trees.	Per 100 Per 1000	Per 100 Per 1000	Per 100 Per 1000			
2-yr. adigs. (2-0), 4 to 9 ins.....	\$1.00	\$ 8.00	2-yr. adigs. (2-0), 2 to 3 ins.....	\$1.00	\$ 15.00			
3-yr. adigs. (3-0), 6 to 15 ins.....	1.80	9.00	3-yr. adigs. (3-0), 4 to 8 ins.....	3.00	15.00			
4-yr. trans. (2-2), 7 to 14 ins.....	3.00	15.00	4-yr. trans. (3-1), 8 to 18 ins.....	5.00	25.00			
			4-yr. trans. (2-2), 8 to 12 ins.....	5.00	40.00			
			6-yr. trans. (3-3), 1 to 20 ins.....	10.00	80.00			
PONDEROSA PINE		BANKS PINE		DOUGLAS FIR				
2-yr. adigs. (2-0), 4 to 8 ins.....	\$2.40	\$ 12.00	Timber, also makes good Christmas tree pruned.					
SCOTCH PINE		2-yr. adigs. (2-0), 4 to 10 ins.....	\$1.00	\$ 8.00	2-yr. adigs. (2-0), 3 to 6 ins.....	\$2.00	\$ 10.00	
2-yr. adigs. (2-0), 3 to 8 ins.....	\$2.00	\$ 10.00	3-yr. adigs. (3-0), 8 to 18 ins.....	1.80	9.00	3-yr. adigs. (2-1), 4 to 7 ins.....	3.00	15.00
RIGA SCOTCH PINE		3-yr. adigs. (3-1), 5 to 10 ins.....	3.00	15.00	BALSAM FIR			
Grown from certified seed—this seed not obtainable today.					2-yr. adigs. (2-0), 1 to 2 ins.....	\$3.00	\$ 15.00	
3-yr. adigs. (3-0), 6 to 14 ins.....	\$3.00	\$ 15.00			EUROPEAN LARCH			
3-yr. trans. (2-1), 4 to 10 ins.....	4.00	23.00	This seed not obtainable today.		2-yr. adigs. (2-0), 5 to 12 ins.....	\$2.40	\$ 12.00	
SPECIAL SCOTCH PINE					PYRAMIDAL ARBOR-VITAE			
Grown from certified seed—this seed not obtainable today.					2-yr. adigs. (2-0), 4 to 10 ins.....	\$1.00	\$ 15.00	
3-yr. adigs. (3-0), 6 to 14 ins.....	\$4.00	\$ 20.00			4-yr. trans. (3-1), 8 to 12 ins.....	6.00	30.00	
3-yr. trans. (2-1), 4 to 10 ins.....	5.00	25.00			4-yr. trans. (3-2), 4 to 9 ins.....	10.00	
AUSTRIAN PINE				GLOBE ARBOR-VITAE				
Grown from certified seed—this seed not obtainable today.					2-yr. trans. (2-1), 3 to 5 ins.....	\$20.00	\$ 100.00	
4-yr. trans. (2-2), 8 to 12 ins.....	\$ 8.00	\$ 40.00			ORNAMENTAL ARBOR-VITAE			
6-yr. trans. (3-3), 8 to 12 ins.....	10.00	50.00			2-yr. adigs. (2-0), 3 to 8 ins.....	\$2.00	\$ 10.00	
WHITE PINE				AMERICAN ARBOR-VITAE				
Excellent timber and Christmas trees.					2-yr. adigs. (2-0), 2 to 3 ins.....	\$2.00	\$ 10.00	
2-yr. adigs. (2-0), 2 to 3 ins.....	\$1.70	\$ 8.50			3-yr. trans. (3-1), 5 to 14 ins.....	4.00	\$ 20.00	
3-yr. adigs. (3-0), 4 to 6 ins.....	2.40	12.00			4-yr. trans. (3-2), 5 to 18 ins.....	6.00	30.00	
3-yr. trans. (3-3), 8 to 12 ins.....	3.00	15.00						
MUGHO PINE								
This seed not obtainable today.								
4-yr. adigs. (4-0), 6 to 9 ins.....	\$ 6.00	\$ 30.00						
4-yr. trans. (3-1), 8 to 6 ins.....	8.00	40.00						
4-yr. trans. (3-2), 4 to 6 ins.....	10.00	50.00						

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PA.

The question box conducted by Ollie Hobbs similarly brought out much discussion from the floor. The query as to how large a tree may be successfully transplanted with bare roots brought the general reply that it depended upon the variety, but that much larger trees than were generally handled with naked roots might be transplanted successfully in that way if sufficient care were taken to speed replanting and protect the roots from drying. Vernon Krider told of planting pines twelve to fourteen feet high with bare roots, preferring that method because he was able to transfer all the small feeding roots, many of which would be cut off if a soil ball were made.

As to time of planting, early fall was considered good for most trees, though for oaks spring is preferred. The tulip poplar is most successfully transplanted when the buds are swelling. Evergreens are not transplanted when the temperature is much below freezing because of the danger of breaking the branches, which are quite brittle at that time.

The attempts to close the meeting with the morning session were abandoned because of the length of these

- Two-wheel Trailers for Arborists and Nurserymen.
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discussions. So a good number reassembled after luncheon to hear reports, elect officers and continue the discussion of credits and guarantees, which led to the appointment of the committees mentioned.

Immediately after adjournment, about twenty local members met to discuss the advisability of forming an organization of firms doing landscape work in Marion county, which comprises Indianapolis and its environs. After some discussion a committee was appointed to obtain information from landscape groups in other cities and plan the form of organization. On this committee were named Ollie Hobbs, chairman; Alex Tuschinsky, E. B. Palmer and H. N. Englewood.

KAY HOULIHAN, daughter of Joseph P. Houlihan, Creve Coeur, Mo., known as an office assistant to her father and a worker at local flower shows, is engaged to be married to J. P. Behan.

AT the January meeting of the Ontario Gardeners' and Florists' Association Harry Endean, who is president of the organization, presented a paper on the propagation of evergreens, outlining the procedure followed by Endean Nurseries, Ltd., at Richmond Hill, Ont., Can. This was followed by demonstrations of cutting and grafting by two members of the Endean staff, A. Rice and L. Rice.

Hardy Plants with Variegated Foliage

By C. W. Wood

It might be interesting to spend some time investigating the causes which lead to variegation in foliage if we were going to be sure of our ground after we arrived at our destination and I had so intended when I began to think about the subject recently, but I finally came to the conclusion that the probable results of the inquiry would scarcely be worth the space. The same is true when one begins to inquire into the desirability of variegated foliage in the landscape, because one either likes it or does not like it and all the logic and sophistry in the world are not apt to change one's opinion. It makes little difference, anyway, whether the commercial grower likes or dislikes variegation; he will have customers (and in increasing numbers, if one is to judge by trends in this section) who want variegated foliage and it will be to his advantage to have the stock on hand. With these thoughts out of the way, we can now go about the pleasant task of enumerating some of the plants covered by the subject.

A good place to commence our inquiry is among the variegated stonecrops. I realize that these plants (the entire genus) have been greatly abused by American gardeners, who have often used them to cover sins against the laws of garden design, but that does not alter the fact that many kinds have definite garden value. Prominent among these is the form of *Sedum alboreum* with a white blotch in the center of each leaf. It is generally known in gardens as *S. spectabile* variegatum, but that it is not a spectable form is shown by its greenish-white flowers, while spectable is always pink. Botanists tell us it should be *S. alboreum* foliis medio-variegatis, but gardeners will likely shorten that to variety variegatum. Whatever it may be called, the plant is an excellent landscape ornament, if used in masses; planted singly or dotted about through the border, it produces a spotted, sickly effect. Although it is a beautiful plant when well grown, the variegated form of *S. sieboldii* usually,

because of its delicate constitution, makes a poor impression in the garden. Here in northern Michigan, we cannot grow it in the open at all, because rain, wind, insects and other adverse conditions either kill it outright or make it quite unpresentable. In sections where the plant is hardy and especially where the rainfall is light, its blue-green leaves with yellow centers and reddish margins, if used unsparingly, make a bright spot from spring until autumn. The only other variegated sedum that is at all common in cultivation is *S. lineare* variegatum. A beautiful plant with its long, narrow light green leaves margined with white or cream, it is too tender for northern states, and its uncontrollable spreading habit would make it a nuisance if it were hardy. It and the next preceding are, however, good pot plants.

One does not ordinarily look for variegated foliage among the irises

and if he did it would be a disappointing search, according to my experience, for only one kind, a variegated form of *Iris pallida*, is known to me. *Iris pallida*, an eastern Mediterranean species of questionable hardness this far north, is best known in its variety *dalmatica*, which is not only fully hardy here, but is one of the best of the bearded irises, not excluding the finest modern varieties. The variegated form is of about the same degree of hardness as the type, which means that it has to be coddled in northern Michigan, if it is to go through our winters. Farther south, it would, I believe, be a fast-moving item in the neighborhood nursery, especially if one's show garden had a planting to show the plant's possibilities in the landscape. It takes a heap of planning to fit a planting of bearded irises into an intimate garden picture, as you will readily admit if you have tried it. The nature of the plant

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(2-1-1) means 2 years as seedling, 1 year in transplant bed, 1 year in another transplant bed. Similarly for other figures in parentheses.

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means that that part of the garden will be a long time without color unless other flowering plants or variegated foliage is introduced into the area. A few clumps of our present plant (correctly, *I. pallida delicata*, I believe) placed at intervals among the other irises will, with its blendings of cream, soft yellow and grayish-green leaves, make a beautiful picture out of an otherwise drab scene.

Because they are useful in so many places where year-round color is desired, the two variegated forms of mother-of-thyme, *Thymus serpyllum argenteus* and *T. s. aureus*, are favorites of many experienced gardeners. Personally, I prefer the latter, with its golden variegated leaves, but the silver of variety *argenteus* is a pleasant foil for many a harsh color. There is no use, I believe, to take space to point out the uses of these thymes in the landscape, for their creeping habit and love of sunshine and well drained soil will tell all observant growers where they will fit into planting schemes.

Although the Spanish oysterplant, *Scolymus hispanicus*, has given me much pleasure as a garden ornament

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	100	1000	5000
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Juniperus Hibernica Fastigiata, T, 12 to 18 ins.	15.00	120.00	540.00
Juniperus Suedica, T, 12 to 18 ins.	17.50	145.00
Picea Excelsa, S, 4 to 7 ins.	2.00	15.00	65.00
Picea Pungens, T, 8 to 12 ins.	10.00	90.00	400.00
Pinus Resinosa, T, 12 to 18 ins.	6.00	50.00	200.00
Pinus Strobus, S, 4 to 8 ins.	2.25	17.50	70.00
Pinus Nigra Corsica, S, 3 to 5 ins.	3.00	25.00	110.00
Taxus Cuspidata, T, 8 to 12 ins.	16.50	145.00	650.00
Taxus Cuspidata, TT, 8 to 12 ins.	20.00	165.00	740.00
Taxus Cuspidata Upright, T, 8 to 8 ins.	12.50	110.00	500.00
Thuja Occidentalis, S, 2 to 4 ins.	1.50	12.00	50.00
Thuja Occidentalis, T, 8 to 12 ins.	0.00	75.00	325.00
Thuja Occidentalis Compacta, T, 12 to 18 ins.	11.00	90.00	425.00
Thuja Occidentalis Compacta, T, 6 to 10 ins.	14.00	120.00	530.00
Anemone Mollis, T, 9 to 12 ins.	12.50	105.00	475.00
Berberis Thunbergii Bright strain, from seed, S, 6 to 10 ins.	1.50	10.00	45.00
Berberis Thunbergii Atropurpurea, S, 9 to 12 ins.	2.50	20.00	80.00
Berberis Thunbergii Atropurpurea, T, 9 to 12 ins.	4.25	35.00	160.00
Castanea mollissima, S, 12 to 18 ins.	11.00	90.00

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FAIRVIEW EVERGREEN NURSERIES

Fairview, Erie Co., Pa.

as well as at the dinner table, I hesitate to mention it here, because it is usually, when grown at all, relegated to the vegetable garden and (whisper the words) it is a biennial. Perhaps the present call for home production of vegetables will gain it a foothold in gardens; if so, let us hope that its big thistlelike pinnatifid leaves with small white spots will sufficiently impress gardeners so that they will want it as an ornament after the

need for food production has passed. As a vegetable, it is far superior to ordinary salsify, in my opinion, being both more delicate in flavor and a far better yielder.

Another group of plants generally with white-spotted leaves is the honeyworts, or cerithes of botanists. As I have grown them, they are mostly annuals, with an occasional biennial and more rarely a perennial. Many of them have, in addition to large

white-spotted glaucous leaves, showy colored bracts. They are not generally articles of commerce; so space will not be taken to describe the different kinds, and they are only mentioned so that seekers for out-of-ordinary items will be on the lookout for anything marked cerinthe.

At least three variegated grasses, gardener's-garters (*Phalaris arundinacea picta*), the variegated oatgrass (*Arrhenatherum elatius bulbosum*, according to Hitchcock, or *A. bulbosum variegatum*, according to gardeners) and *Molinia caerulea variegata* should find a place in our enumeration. The first is too well known to need extended comment, being found in many gardens and having escaped from cultivation in some sections. The type is, of course, known to frequenters of uncultivated areas, where it grows naturally, often to a height of four or five feet, in wet places throughout the northern states. The variegated oatgrass is, on the other hand, less often seen in gardens, if my observations are correct. It is a splendid little grass, seldom over eight inches tall in my light soil, and a cheerful companion in sunny or partly shaded situations, where its pretty variegated (white and green) foliage is indicated. It is easily propagated by division, each culm bearing at its base a short string of bulbs or corms. I have not seen the variegated molinia for several years and wonder if it is no longer in the trade. The type is said to have established itself in some sections of the east, but I have never heard of the variegated form's going native. It is quite the loveliest of the variegated grasses that I have seen, the whitest in its striped leaves and therefore the most effective for contrasts.

The round-leaved mint, *Mentha rotundifolia*, a European plant which has made itself at home in moist spots throughout most of the eastern and middle western states, has a pretty variegated form. It is not nearly so strong in growth as the rampageous parent, though it would need looking after if its home was to its liking and it would need further looking after to keep the wholly green shoots pulled out. It looks its best when nothing but the variegated or entirely white shoots and leaves are allowed to grow. Then it is one of the most striking of variegated plants. It is easily grown from cuttings of the best variegated stems.

Deservedly or not, the deadnettle, *Lamium maculatum*, has a bad reputation among gardeners, perhaps because it has been incorrectly used. There is no denying the fact that it could, and no doubt would, play havoc among small delicate plants, if it were given its way. But there are nearly always unconsidered places, as on dry sterile slopes, where its variegated form would offer a solution to an otherwise difficult problem. If the white-flowered form with more than the ordinary number of white blotches along the midrib can be found, the answer will be doubly sure of acceptance by gardeners.

Perhaps my favorite variegated-leaved hardy plants are to be found among the plantainlilies. The genus as a whole is a much-neglected group, containing far more good landscape material than some genera found in every garden. If you are neglecting the plantainlilies, you are surely overlooking one of your best friends. After you have added to your list such good kinds as *Hosta fortunei*, *H. caerulea* and *H. lancifolia*, all generally appearing in lists as funkias, you will no doubt want to increase your propagation to include several of the variegated forms. The most readily available of the latter appears to be *H. lancifolia undulata* (*Funkia undulata* of some lists), an especially beautiful plant with wavy white-margined leaves and the lilac-colored flowers of the type. It is a plant up to fifteen inches in height, admirably suited to mass planting in good soil in sun or part shade. There is also a form with the leaves of the type, except that they are edged in white. There are several other variegated plantainlilies (the literature mentions variegated forms of most species), though few are regular articles of commerce. The white-margined form of the common blue plantainlily, *Hosta caerulea*, is a beautiful plant, now quite rare in nurseries, though

sometimes seen in old gardens. The lovely yellow-variegated form is even more rare. If you are interested in variegated foliage, it will pay you to investigate the hostas.

A plant, *Acorus calamus variegatus*, which I only know from hearsay, has intrigued me for years. According to the records, it is a typical calamus with the addition of cream and green variegated leaves and "a certain amount of burnt sienna and rich red about the base of the leaves." That may not sound exciting to some, but it has haunted me for years, and I am sure that it would make a good item for local sales. Does anyone know where it can be purchased?

Although I am not especially fond of any bugles and no longer grow them at all, I recall that a variegated form that I once had sold well locally. If I had it now I should probably like it and I am sure it would sell better than some things in the present list. It is a typical bugle, spreading its rosettes over everything in its path, yet with some restraint from the hands of the gardener, its pretty foliage, variegated with cream and pink on green, would make a bit of attractive color from spring until winter. I notice that it is in some lists under name of *Ajuga variegata foliosa*, though I find no authority for its use.

Before closing I should like to say a few words about a plant, *Hypericum moserianum tricolor*, which I can only grow in pots, indoors. Farther south where type *moserianum* is hardy in the open, tricolor should produce with its leaves variegated white and green, edged in red, one of the gayest spots in the garden, and would there no doubt become instantly popular. It would be expecting too much, I suppose, to ask for the spectacularly large flowers of *moserianum* on its gay offspring; one would be disappointed if he did, for the flowers are usually less than an

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inch in diameter, instead of two inches or more in the type.

As I look back over what has been written here on the subject of variegated foliage, I realize how incomplete it is. But it is hoped that what has been said may open up an intriguing subject and perhaps a profitable one for many nurserymen readers.

OBITUARY.

Louis H. Frese.

Louis H. Frese, retired nurseryman of Quincy, Ill., died recently in the home of his son Edward, at the age of 85. Born at Quincy, he married Miss Elizabeth Hessling in 1878 and moved to Coatsburg, where he operated the Forest Oak Nursery for twenty-five years. Later he returned to Quincy and conducted a nursery business on North Twelfth street until twenty-seven years ago, when he retired from active business. In 1938, a son, George, who had been operating the business after his father's retirement, was adjudicated bankrupt, and the following year the Bergman Nurseries opened at the North Twelfth street location.

Mr. Frese was a member of St. John's Catholic church. Surviving, in addition to the two sons already mentioned, are three other sons—Joseph, William and Louis; three daughters, three brothers and three sisters. His wife died in 1936.

O. H. Tindell.

O. H. Tindell, owner of Tindell Nurseries, Inc., Fountain City, Tenn., died January 10 after a heart attack. He was 57. Surviving are his widow, Mrs. Margaret C. Tindell; six daughters, three brothers and one sister.

LANDSCAPE MEN ELECT.

At the January meeting of the North Jersey Landscape Association the following officers were elected: President, Herbert C. Koffler, Irvington; vice-president, Gustave V. Adelhelm, East Orange; secretary, Warren F. Schuch, East Orange, and treasurer, Fred A. Witt, Orange.

The organization meets monthly at its headquarters at Irvington, and the membership is comprised of trained landscape contractors and nurserymen of northern New Jersey.

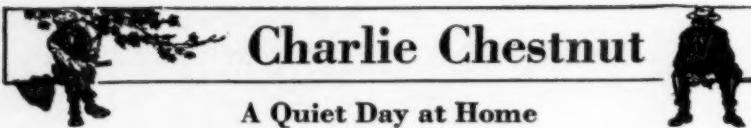
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<i>Alnus maritima</i>	.50	1.75	
<i>Arnucaria excelsa</i> , per 100 seeds, \$2.00; per 1000 seeds, \$15.00.			
<i>Aristolochia tomentosa</i>	.55	1.85	
<i>Aronia arbutifolia</i> , d.b.	.35	1.25	
<i>Azalea calendulacea</i> , c.s., ¼ oz., 99¢; “ <i>schlippenbachii</i> , c.s., ¼ oz., \$1.00			
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<i>Betula nigra</i> , c.s.	.50	1.75	
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<i>Calycanthus floridus</i>	.50	1.65	
<i>Caragana arboreascens</i>	.25	.80	
<i>Casuarina cunninghamiana</i>	2.75	10.00	
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<i>Ceanothus americanus</i>	.55	1.85	
<i>Celastrus scandens</i> , c.s.	.80	2.75	
<i>Cercis canadensis</i>	.30	.95	
<i>Chionanthus virginicus</i> , c.s.	.45	1.50	
<i>Claudatia lutes</i>	.65	2.25	
<i>Cornus alternifolia</i> , d.b.	.50	1.80	
“ <i>florida</i> , c.s., washed	.45	1.50	
“ <i>kousa</i> , c.s.	.90	3.25	
<i>Corylus americana</i>	.25	.75	
<i>Cotoneaster horizontalis</i> , c.s.	1.80	6.50	
<i>Crataegus crusgalli</i> , c.s.	.45	1.50	
<i>Cryptomeria japonica</i>	.70	2.50	
<i>Cupressus arizonica</i>	.90	3.25	
“ <i>glabra</i>	.90	3.25	
“ <i>macrocarpa</i>	.85	3.00	
<i>Cydonia japonica</i> , c.s.	.90	3.25	
<i>Cytisus scoparius</i>	.85	3.00	
<i>Diospyros virginiana</i>	.25	.70	
<i>Elaeagnus angustifolia</i> , 1.b.	.25	.80	
“ <i>argentea</i> , c.s.	.35	1.25	
<i>Epigaea repens</i> , per ½ oz., \$1.25			
<i>Eucalyptus rostrata</i>	1.80	6.50	
“ <i>globulus</i>	2.75	10.00	
<i>Euonymus europaeus</i> , d.b.	.65	2.25	
<i>Fraxinus americana</i>	.45	1.50	
“ <i>lanceolata</i>	.25	.85	
“ <i>quadrangulata</i>	.45	1.50	
“ <i>volutina</i>	.90	3.10	
<i>Hamamelis vernalis</i>	1.35	4.75	
<i>Hicoria cordiformis</i>			
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<i>Ilex opaca</i> , d.b.	.25	.75	
<i>Juniperus horizontalis</i> , d.b.	.45	1.60	
<i>Kelireuteria paniculata</i>	.65	2.25	
<i>Larix leptolepis</i>	1.95	7.00	
<i>Magnolia acuminata</i> , c.s.	.45	1.60	
“ <i>fraseri</i> , c.s.	1.25	4.50	
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“ <i>grandiflora</i>	.50	1.75	
“ <i>soulangiana</i> , c.s.	2.00	7.25	
“ <i>tripetala</i>	.45	1.60	
<i>Malus Domestic Apple</i> , c.s.	.40	1.25	
<i>Morus alba</i> , c.s.	.65	2.25	
“ <i>tatarica</i> , c.s.	.45	1.60	
<i>Nyssa aquatica</i>	.40	1.40	
<i>Parkinsonia aculeata</i> , c.s.	.85	3.00	
<i>Paulownia tomentosa</i>	.70	2.50	
<i>Picea Canadensis</i> , White Spruce	1.65	6.00	
“ <i>glauca albertiana</i> ,			
“ Black Hills Spruce	2.10	7.50	
“ <i>pungens</i> (Colo.)	1.25	4.50	
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<i>Pinus sitchensis</i>	1.70	6.00	
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<i>Pistacia chinensis</i>	.65	2.25	
<i>Platanus orientalis</i>	.25	.75	
<i>Prunus avium</i> , c.s.	.35	1.10	
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“ <i>multiflora</i> thornless, c.s.	.70	2.50	
“ <i>rugosa</i> , c.s.	.25	.80	
<i>Sambucus pubens</i> , c.s., per oz., \$0.25			
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<i>Syrinx americana</i>	.50	1.75	
<i>Swietenia mahagoni</i>	1.65	6.00	
<i>Taxodium distichum</i>	.35	1.10	
<i>Taxus cuspidata</i>	2.25	8.00	
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<i>Thuja orientalis</i>	1.00	3.50	
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One cold day last November as I was driving to work at 7 o'clock in the A.M., I seen Emil standing there on the back porch at his house trying to flag me down as I drove past. I knew the whistle on the windmill factory had blowed as I come over the bridge down town, and so I thought probably the old boy was in a mood to call me on being a couple of minutes late. I parked my car in the corn crib and walked over to the house. Just as I got to the house his wife Emma come out, grabbed him by the arm, and hustled him into the house. Anybody could see something was wrong. Emil had on his night shirt, tucked into his pants, his hunting cap over one ear, and a muffler around his neck.

When I got into the house, he was setting in his rocking chair with a dejected look, with a horse blanket over his legs, and in front of the coal stove. "Whats wrong with you, Emil?" I says, "Was you out to an all night wake someplace last night, or was it something you eat?"

"It aint nothing, Chas., but a touch of fever and a cough. Im going to stay in bed today. I want you to go right down to the drug store and get some stuff so I can mix up a batch of cold medicine." He got out his notebook, the little blue one he always carries in his pocket at the conventions, and started to turn the pages.

"Here it is, Chas., write it down," he says. "This is a cure John Bush-bottom gave me at the convention in New York City. John says he was so weak with a fever one time he was getting circulars from different undertakers when this cure brought him right out of it. You rub this stuff on and alternate with a good shot of bourbon every half hour. Here it is, Chas., write it down: 1 ounce of snake oil, 1/2 pound of goose grease, one box of white salve, and some tallow. You go to work and mix that up and cook it up good for about 20 minutes and —"

Emma busted into the front room with the phone book in her hand and a determined look in her eye. "Im going to call the Doctor right

away, Emil," she says. "You may be getting pneumonia, and furthermore I aint going to have the house smelled up with a lot of stuff cooking up with snake oil."

Emil didnt pay any attention to her. He says to me, "Go ahead, Chas., before I get worse, and you better stop and get me a pint of bourbon, and bring over the mail, Chas., and also get all the morning papers and a couple of cigars, Chas."

I left Emil and his Mrs. arguing and ducked out for town. They didnt have any snake oil at the drug store, so Mr. Morse just put up a bottle of mineral oil with a little coloring in it. "That wont hurt the old boy, and it'll be better than snake oil anyway," said Mr. Morse. "Tell Emil to take care of himself, Chas. That will be 90c", he says.

"Emil says to charge it, Mr. Morse," I says. "He will be down Saturday night."

"You tell Emil Im giving up charging stuff, Chas. He is owing me since last spring as it is."

After I picked up the mail over to the office, I took all the stuff over to the house and spread it out on the dining room table. Emil didnt pay any attention to what I brought. He had his shot gun all apart with pieces all over the floor.

"Chas., he says, "this firing pin is bent here. No wonder I been having trouble with this gun. Here, take this down to the machine shop and see if they can fix it, or else have them make a new one. I want to have this working by next Sunday. Better bring up a can of oil too. I want to oil it all up and polish the stock too."

Just then Emma come out of the kitchen and lit into Emil. "Emil," she says, "you either get into bed or else cover up with that blanket. Get all that rubbish off the floor and dont get any grease on the carpet."

Emil hunched himself up in the chair and pulled up the blanket, and I was off again down town. I was gone about a hour getting the pin fixed and making a few calls of my own around town, including a game of kelly pool, before I got back to Emils house.

"I seen some of the members from the Civic Club down town, Emil," I says. "They want to have the sick committee call on you. They might drop in this P.M."

"Now see here, Emil," his Mrs. horned in, "I dont want any of your cronies coming here this P.M., as I am expecting some ladies from the Relief Corps. Chas., you just go right now and call that visiting committee off. The very idea, a man home with a cold and they send up the committee. Never heard of such nonsense."

By that time it was getting on to the middle of the forenoon and Emil was getting hungry. "Chas., he says, "what do you say if we have a batch of pork shanks and sour kraut for dinner. You better run down and hold off that committee from the Civic Club, and then stop into the butcher shop and get some good pig knuckles. I aint had that since the convention in New York."

"Dont forget," I says, "you was sick for three days after that last time you loaded up on pork shanks."

"That wasnt the pork, Chas., that was just the terrific heat that summer."

Emma overheard the conversation and come bustling in from the kitchen. "I am making a kettle of thin soup for you, Emil, thats what

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you should be eating in your condition."

"Soup my eye, Emma," he says. "Im hankering for a batch of pork shanks, and I invited Chas. to stay for dinner. Go ahead, Chas., bring up a good batch and lots of sour kraut."

I wasnt going to enter any family argument, so I sneaked out the front door and was back in a few minutes with the pork and sour kraut. I laid it on the kitchen table and was going to ease out the door when Emil hailed me. "Chas.," he yelled, "just one minute. So long as I am going to mix a batch of this cold medicine, I might as well go to work and make some eye salve too. I was telling one of the members the trouble I have sitting in the duck blind when my eyes run so bad I cant see the ducks. He says he had a cure for running eyes, and I wrote it down here someplace in my notebook. Lets see, 1 oz. of epicac. No thats something for sour stomach. Here, Chas., you read that page there. Its kind of blurred so I cant see it. Aint that the eye salve?"

"Maybe this is it, Emil. Two ounces of rose water, one ounce of Chief Bullfeather herb tea, and two cups of weak brandy and hot water. What do you do with it Emil? Drink it or pour it in your eye?"

"Dont it say how to use it? Read the directions, Chas. What does it say on the next page."

"The next page is a quotation from the East and West Nursery Co., on 10,000 plants of pink rhubarb, and after that is a —"

"What is that quotation, Chas.? I knew I had that some place. Tear out that page Chas., and put it in my desk at the office. When I get back to the office, Im going to put out a want list. I got a idea to corner all the pink rhubarb and clean up. Go ahead now and get those items, Chas., and while you are down there bring back a can of shellac and a small brush. I want to touch up my fishing rod a little to put away for the winter."

By that time it was 11:30, so I put in time down town until I figured the pig knuckles was done. Then I come back and me and Emil laid into a big double helping each. Emil managed to waddle over to the chair by the stove and pulled the blanket up over him and dozed off right away. I went on over to the office. It

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Juniperus virginiana Burkii	3.00	27.50
Juniperus virginiana Canærtii	3.00	27.50
Juniperus virg. elegantissima	3.00	27.50
Juniperus virginiana glauca	3.00	27.50
Juniperus virginiana globosa	3.00	27.50
Juniperus virginiana Keteleeri	3.00	27.50
Juniperus virginiana Kosteri	3.00	27.50
Juniperus virginiana Schottii	3.00	27.50
Juniperus virginiana pendula	3.00	27.50
Juniperus virg. pyramidalis	3.00	27.50
Juniperus virg. pyramidiformis	3.00	27.50
Juniperus Sabina Von Ehren	3.00	27.50
Magnolia Alexandrina	3.50	32.50
Magnolia Halleana stellata	3.50	32.50
Magnolia Lennei	4.00	37.50
Magnolia Soulangeana	3.50	32.50
Magnolia Soulangeana nigra	3.50	32.50
Picea pungens Moerheimii	3.50	32.50
Pinus Cembra	3.00	27.50
Quercus Robur fastigiata	4.00	37.50
Thuja occidentalis Douglasii spiralis	2.50	22.50
Thuja oc. elegantissima	2.50	22.50
Thuja. oc. hirsuta, Geo. Peabody	2.50	22.50
Thuja occidentalis lutea, B. & A. type	2.50	22.50
Thuja occidentalis nigra	2.50	22.50
Thuja oc. Rosenthalii	2.50	22.50
Thuja occidentalis Wareana (sibirica)	2.50	22.50
Thuja orientalis aurea nana	2.25	20.00
Thuja orientalis conspicua	2.25	20.00
Thuja orientalis elegantissima	2.25	20.00
Taxus media Brownii	3.00	27.50
Taxus media Hatfieldii	3.00	27.50
Tsuga canadensis pendula	3.00	27.50

HESS' NURSERIES

P. O. Box 52

Mountain View, New Jersey

wasn't 10 minutes before he was on the back porch yelling for me, so I went over to see what was up now.

"Chas.," he says, "would you take my lower plate down to Dr. Brown and get these two back teeth ground down. As I am taking the day in bed, I wont need to go out anywhere, and while you are down town, step into the harness shop and get me some waxed thread. I want to mend my hunting boots where they are ripped in the back."

Emma was after him again, and before he could finish whatever else was on his mind he was dragged into the house, and I drove on down town. Along about quitting time I dropped over to the house with the last of my errands.

"Chas.," Emil says, "if I aint better in the morning, I want you to go over to the slough the first thing in the morning and bring back my duck boat. Bring it back and put it down cellar next to the furnace. I want to scrape the bottom and paint it. Seems like it leaks in one end."

"Chas.," his wife says, "you'll do nothing of the kind. If Emil isn't better tomorrow, I will be in the bug house."

Next morning I didnt see nothing of Emil, but about 9 A.M. his wife come over to the office.

"Emil wont be over today," she says. "His cold is about gone, but he aint able to get up. He says it was the wrong kind of snake oil in that medicine, but I claim it was them pig knuckles. Whatever it was, it knocked him out so he aint even called for his breakfast."

BUSINESS RECORDS.

New York, N. Y.—A voluntary petition in bankruptcy has been filed by Anthony Mincheli, landscape gardener, 1030 Neil avenue; listing liabilities of \$11,021, with no assets.

Rollingbay, Bainbridge Island, Wash.—Margaret Murphy, plaintiff, vs. Frederick A. Murphy, defendant, have called for bids on the Murphy Rhod-Azalea Gardens. Bids may be made on the whole or part of the plantings of the said gardens or on all the real estate and plantings. Bids will be received at the office of Arthur M. Harris, attorney for the receiver, room 213, Second Avenue building, Seattle, Wash., until 10 a. m. March 20, 1942.

This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Hemming

THE WAR AND AFTER.

We oldsters who were active in the nursery business during the first World war can well recall the hysteria which led to much ill-directed and useless effort, also the effect the war had on this business of ours as a whole, during the war and the years following. During the war, of course, practically all propagation and planting of ornamentals stopped. Labor shortage and absence of market reduced the industry to a bare skeleton, driving many out of the business unless they were exceptionally well founded.

The result was that when peace was declared there was little stock available to supply a return to civil pursuits and the boom which followed. The whole nursery trade went frantically into propagation and production.

When the business had produced enough to go places, the depression set in and wiped the demand off the map and many nurseries along with it.

Our business as a whole is fundamental and essential to society and is one which cannot be expanded or retracted at will in a short time.

All the science and labor in the

world cannot produce a 5-year-old fruit tree in less than five years, and so on all along the line of nursery products.

We are in a total war, and every good citizen is willing to place himself and all he has in an effort to bring it to a victorious conclusion. This, more often than not, with the nurseryman consists of cutting out the unessential frills and working harder and longer hours right on his own nursery.

It may be advisable to grow a few acres of carrots or other foodstuffs instead of easily propagated shrubs, but the nurseryman's principal job is to preserve stocks and growth essential to the welfare of the country, so as to be ready to go into production when the world is made ready for the new order. This does not mean Hitler's new order, but one that is surely in the making in the democracies, one that this business of ours must measure up to.

It will no longer be a society of very rich, with large country estates and professional landscape architects, but the modest home well planted many times multiplied, with well planted roadsides and public parks.

ONE-YEAR CHERRY

Montmorency and Early Richmond

11/16-in., 20c; 9/16-in., 15c; 7/16-in., 10c

PEACH IN VARIETY

7/16-in., 8c; 5/16-in., 5c; 18 to 24 ins., 3c

HILLENMEYER NURSERIES

Lexington, Ky.

ATTENTION LANDSCAPERS

	Per 10	Per 100
24 to 30 inches, 6 to 15 canes, uniform tops; well balanced good top spread; well rooted; lots of bloom buds.....	\$6.00	\$45.00
We will also furnish the AZALEA NUDIFLORA and VISCOSA at the same price.		
If interested in carload lots write us.		
RHODODENDRON MAXIMUM. Rosebay Rhododendron.		
KALMIA LATIFOLIA. Mountain laurel.		
24 to 30 inches, 4 to 6 canes, nice uniform tops; well rooted.....	\$7.50	\$50.00
The above stock is Collected and bare roots. No charges for packing.		

EVERGREEN GARDEN NURSERY

McMinnville, Tenn.

Boyd

NURSERY COMPANY

McMINNVILLE, TENN.

We have some fine nursery-grown seedlings in the following varieties and can make immediate shipment.

White-flowering Dogwood, S.	Per 1000 4 to 6 ins.....	\$ 8.00
White-flowering Dogwood, S.	6 to 12 ins.....	12.00
White-flowering Dogwood, S.	12 to 18 ins.....	18.00
Redbud, S.	6 to 12 ins.....	6.00
Redbud, S.	12 to 18 ins.....	8.00
Redbud, S.	18 to 21 ins.....	10.00
Cydonia Japonica, S.	6 to 9 ins.....	10.50
Cydonia Japonica, S.	9 to 12 ins.....	15.00
Cydonia Japonica, S.	12 to 18 ins.....	15.00
Chinese Elm, S.	6 to 12 ins.....	4.00
Chinese Elm, S.	12 to 18 ins.....	7.00
Chinese Elm, S.	18 to 24 ins.....	9.00
Russian Mulberry, S.	6 to 12 ins.....	5.00
Russian Mulberry, S.	12 to 18 ins.....	7.00
Russian Mulberry, S.	18 to 24 ins.....	10.00
River Birch, S.	18 to 24 ins.....	12.50
River Birch, S.	24 to 3 ft.....	20.00
River Birch, S.	3 to 4 ft.....	20.00

TREES

Pink-flowering Dogwood, br.	Per 100 2 to 3 ft.....	\$50.00
Pink-flowering Dogwood, br.	3 to 4 ft.....	90.00
American Sycamore, br.	6 to 8 ft.....	30.00
American Sycamore, br.	8 to 10 ft.....	50.00
Sweet Gum, br.	5 to 6 ft.....	40.00
Sweet Gum, br.	6 to 8 ft.....	60.00

This stock is quoted F.O.B. McMinnville, Tenn. Boxing and packing to be added at actual cost. If cash accompanies order, packing free.

Write for our Trade List.

1893 1942

We Offer—

FOR SPRING 1942

SHRUBS	EVERGREENS
	SHADE TREES
APPLE, PEACH, CHERRY AND PEAR TREES IN ASSORTMENT.	
BERRIES—Green and Red	
CALIFORNIA PRIVET	
2-yr. ASPARAGUS PLANTS, etc.	

Write for trade list.

THE WESTMINSTER NURSERIES
Westminster, Maryland

"A friendly, efficient sales service"

E. D. ROBINSON
SALES AGENT
38 So. Elm St. P. O. Box 285
WALLINGFORD, CONN.

Representing

Adams Nursery, Inc.
Bristol Nurseries, Inc.
Barnes Brothers Nursery Co., Inc.
North-Eastern Forestry Co., Inc.
A. N. Pierson, Inc.

A complete line of well grown hardy plant material
Evergreens and Lining-out Stock

JAPANESE YEW SEED
from domestic stock. Supply limited

PEEKSKILL NURSERY, Peekskill, N. Y.

Hardy Pecan Trees. Grafted Black Walnut. Heartnut Trees. Budded varieties of native Persimmon. Sweet Cherry Trees.

Write for price list.
44 years growing trees.

J. F. JONES NURSERIES
Dept. T-142 Lancaster, Pa.

J. F. JONES NURSERIES

It is the job of this business of ours to take the initiative in making the world a better place in which to live.

E. H.

GEORGIA MEETING.

James A. Stubbs, Atlanta, was elected president of the Georgia State Nurserymen's Association at its closing session at Athens, January 20. C. N. Morse, Chattanooga, Tenn., and Edwin F. Kellogg, Athens, were elected vice-president and secretary-treasurer, respectively.

The convention, which opened January 19, at the Holman hotel, heard addresses on how the organization can aid in the economic development of Georgia, as well as assist in winning the war.

Donald M. Hastings, Atlanta, was toastmaster at the banquet, at which President Harmon W. Caldwell, of the University of Georgia, spoke. "The work of landscaping will have a great bearing on the future," he said, "for it will build a more beautiful state and develop hobbies which will render a service of happiness to all people and uphold the morale of the country."

Robert R. Gunn, Athens, captain of the Georgia defense corps, said, "Now as never before it is necessary to plant, cultivate and beautify in order to help overcome the worldwide shortage which is being caused by the destructive instruments of war. This beautification will also help civilian morale."

J. H. Girardeau, Georgia state entomologist, appealed to the nurserymen to coöperate in the eradicating of irresponsible nursery peddlers who sold plants without the state certificate of inspection.

Stressing the importance of good advertising in business, Willett Main Kempton, assistant professor in the Henry W. Grady school of journalism, addressed the association at the final session. He advised the nurserymen to adopt some attractive trademark of their business so that the public could identify the organization.

HEARING will be held at the state nursery inspector's office, at Glen Ellyn, Ill., February 20, on the proposed extension of the Illinois quarantine for the Japanese beetle in Chicago, Evanston, Cicero and Highland Park.

SHADE TREE SPECIAL

The demand for shade trees is good. We offer the following, well rooted and good grade.

	Per 100
600 Ash, Green, 6 to 8 ft.....	\$ 40.00
900 Ash, Green, 8 to 10 ft.....	55.00
200 Ash, Green,	
1 1/2 to 2-in. cal.....	90.00
250 Ash, Wafer, 5 to 6 ft.....	25.00
200 Crab, Flame, 5 to 6 ft.....	40.00
500 Elm, Hoppe, 5 to 6 ft.....	40.00
3000 Elm, American,	
1 1/2 to 2-in. cal.....	80.00
1500 Elm, American,	
2 to 2 1/2-in. cal.....	115.00
1200 Elm, American,	
2 1/2 to 3-in. cal.....	140.00
200 Elm, Chinese, 6 to 8 ft.....	35.00
200 Elm, Chinese, 8 to 10 ft.....	50.00
900 Elm, Chinese,	
1 1/2 to 2-in. cal.....	80.00
700 Elm, Chinese,	
2 to 2 1/2-in. cal.....	115.00
400 Elm, Chinese,	
2 1/2 to 3-in. cal.....	125.00
100 Elm, Chinese,	
3 to 3 1/2-in. cal.....	200.00
500 Hackberry, 4 to 5 ft.....	25.00
700 Hackberry, 5 to 6 ft.....	35.00
300 Linden, American,	
2 to 2 1/2-in. cal.....	135.00
500 Linden, American,	
2 1/2 to 3-in. cal.....	160.00
600 Linden, American,	
3 to 3 1/2-in. cal.....	225.00
200 Linden, American,	
3 1/2 to 4-in. cal.....	275.00
400 Russian Olive, 6 to 8 ft.....	35.00
200 Russian Olive, 8 to 10 ft.....	50.00
1000 Walnut, Black, 6 to 8 ft.....	30.00
1000 Walnut, Black, 8 to 10 ft.....	40.00
500 Walnut, Black, 10 to 12 ft.....	60.00

Prices subject to change.

SHERMAN NURSERY CO.
Charles City, Iowa

Rhodos
BOTH NATIVE
AND NURSERY GROWN

KALMIA AZALEAS
Hemlocks AND Pieris

La Bars'
STROUDSBURG PA.

OWN-ROOT HYBRID RHODODENDRONS

Established standard varieties on their own roots are harder, lower-branching, more compact and more vigorous than grafts or layers.

Gable's
HARDY Hybrid Azalea

New varieties with large, bright and abundant flowers in amazing new shades. Hardy as Amoena.

Rooted cuttings and transplants.

OLD KENT NURSERY
Box 8, CHESTERTOWN, MD.

KOSTER COMPANY, INC.

Lining-out Stock

of Top Quality

BRIDGETON, N. J.

Write for catalogues.

Meet at Des Moines

The twenty-first annual meeting of the Iowa Nurserymen's Association was called to order by President David S. Lake, Monday afternoon, January 26, at the Kirkwood hotel, Des Moines. About fifty registered.

Secretary Ralph Hughes, in his annual report, stated the number of paid members was fifty-five, the largest for many years.

Wayne Ferris and Harley Deems gave reports on the several meetings held with the state conservation commission regarding a marketing plan for trees grown at the state nursery. The legislative committee has been quite active during the past year, with a fine record of results for the Iowa nurserymen.

"Planning the Small Home Grounds" was discussed by Prof. R. R. Rothacker, department of landscape architecture, Iowa State College. He stated the advertising program of the American Association of Nurserymen of a decade ago featuring the outdoor living room had proved successful and that nurserymen were still receiving business on the strength of the nation-wide campaign of home beautification. Mr. Rothacker went into detail in suggesting proper plant arrangement for small homes, submitting model drawings and blackboard sketches.

Arthur Brayton, secretary of the Des Moines convention bureau, expressed his appreciation of the association's holding its annual meeting at Des Moines and extended a cordial invitation for next year's meeting.

The annual banquet was well attended. Music was furnished by students of Drake University. Short talks were given by Mark Thornburg, state secretary of agriculture; Fred Schwob, chairman of the state conservation commission, and Frank Ferbush, of Better Homes and Gardens. Wayne Ferris acted as toastmaster.

Edwin J. Stark, president of the American Association of Nurserymen, gave an interesting talk on "Activities of the A. A. N. in the Interests of the Entire Nursery Industry." Mr. Stark outlined the victory garden program in a capable manner. As a result of Mr. Stark's visit to the Iowa convention, four

new members for the A. A. N. were secured.

B. S. Pickett, head of the department of horticulture, Iowa State College, reviewed some recent developments of interest to nurserymen and orchardists. Mr. Pickett stated that orchardists might now secure loans from the federal government for re-planting fruit trees which had been damaged by the severe storm of November, 1940.

New officers were elected as follows: President, David C. Snyder, Center Point; vice-president, Wayne Ferris, Hampton; secretary-treasurer, Ralph Hughes, Cedar Rapids; assistant secretary, R. S. Herrick.

Delegates to the A. A. N. convention were chosen, as follows: David S. Lake, Shenandoah; Wayne Ferris, Hampton, and Harold Parnham, Des Moines. Alternates are Carl Baumhoefner, Cedar Rapids; Fred Jackley, Panora, and Lloyd Platt, Oelwein.

Iowa nurserymen are optimistic about spring business. They think the victory garden campaign may be

AMERICAN WHITE BIRCH

Clean straight trees. Nursery-grown.

	Per 100
4 to 5 ft.....	\$ 40.00
5 to 6 ft.....	50.00
6 to 8 ft.....	70.00

CHINESE ELM

Straight clean trees.

	Per 100
6 to 8 ft.....	\$30.00

No orders accepted for less than 100 trees.

F.O.B. Nursery. Packing charges additional.

CLEARBROOK FARMS NURSERY

Route 25

Dundee, Ill.

VIBURNUM BURKWOODII

NEW - SCARCE - HARDY

Most striking improvement in flowering shrubs in many years—fragrant pink and white flowers.

Write for illustrated folder and prices

The Siebenthaler Company
DAYTON, OHIO

of some help. A state meeting of various groups and associations interested in victory gardens will be held at Ames, February 9.

The annual summer meeting will be held at Charles City as guests of the Sherman Nursery Co.

NORTH CAROLINA MEETING.

The meeting of the North Carolina Association of Nurserymen was held in conjunction with the fourth annual short course for nurserymen, at North Carolina State College, Raleigh, January 15 to 17.

During the business meeting a code of ethics for nurserymen and the possibility of legislation to license dealers in nursery stock were discussed.

Lectures which opened the session of the short course included "Some

ATHENS NURSERY CO.

Athens, Ala.

Per 100

Chamaecyparis plumosa (Green Retinospora)

1-yr., field-grown, 6 to 8 ins..... \$6.00

Chamaecyparis plumosa aurea

1-yr., field-grown, 6 to 8 ins..... 6.00

Juniperus canadensis

2-yr., T., 6 to 8 ins..... 6.00

2-yr., T., 8 to 12 ins..... 7.50

Juniperus communis hibernica

1-yr., field-grown, 6 to 8 ins..... 6.00

1-yr., field-grown, 8 to 10 ins..... 7.50

Juniperus excelsa stricta

1-yr., field-grown, 6 to 8 ins..... 6.00

2-yr., T., 8 to 12 ins..... 12.50

Juniperus horizontalis plumosa

1-yr., field-grown, 6 to 8 ins..... 6.00

1-yr., field-grown, 8 to 10 ins..... 7.50

2-yr., T., 8 to 12 ins..... 10.00

2-yr., T., 12 to 15 ins..... 12.50

Juniperus sabina

1-yr., field-grown, 6 to 8 ins..... 6.00

1-yr., field-grown, 8 to 10 ins..... 7.50

2-yr., T., 12 to 15 ins..... 12.00

Berberis thunbergii

2-yr., S., trans., 12 to 15 ins..... 3.00

Calycanthus floridus

2-yr., T., 24 to 30 ins..... 7.50

Cornus florida rubra

3 to 4 ft., NR..... 75.00

2 to 3 ft., NR..... 60.00

Deutzia crenata

4 to 5 ft., well branched..... 12.00

3 to 4 ft., well branched..... 10.00

Forsythia viridissima

1-yr., field-grown, 12 to 15 ins..... 3.00

Lonicera fragrantissima

2-yr., 2 to 3 ft..... 6.00

Spiraea arguta

1-yr., field-grown, 8 to 12 ins., bushy..... 5.00

Syringa chinensis

1-yr. grafts, 2 stems up, 24 to 30 ins..... 7.50

Weigela hendersoni

3 to 4 ft., bushy..... 12.00

Weigela roses

3 to 4 ft., bushy..... 12.00

Weigela Eva Rathke

1-yr. grafts, 18 to 24 ins..... 7.50

Flowering Peach, red and white

3 to 4 ft..... 15.00

All Juniper liners are field-grown and are superior to bed-grown plants. All plants are freshly dug and puddled when shipped. No packing charge when cash accompanies order.

Amur River North Privet Cuttings
Let us make up your cuttings from our tried and proven "Mother Blochs." Genuinely Amur River North Privet. All cuttings hand sorted. \$2.00 per 1000; 5,000 or more, \$1.00 per 1000. Cash with order, packing free. Orders at once.

ALTA VISTA NURSERIES
Davenport, Iowa

LINING-OUT STOCK**OUR SPECIALTIES**

Norway and Schwedler Maple Whips,
5 to 6 ft., and 6 to 7 ft.

HYDRANGEA—P. G., 1-yr. Layers

A very complete line of
**ORNAMENTAL TREES, SHRUBS
AND EVERGREEN SHRUBS**
including many scarce items. Send
for first 1942 list.

THOMAS B. MEEHAN CO.
DRESHER, PA.

SHRUBS

A Complete Assortment
Of Clean Well Grown Plants

Write Us

JACKSON & PERKINS COMPANY
Newark, New York

**Thousands of Evergreens
at Prewar Prices**

Juniper. Pfizer's, 24 to 30 ins., \$1.25 each; 30 to 36 ins., \$1.50 each; 3 to 4 ft., \$2.00 each.

Juniperus Virginiana, sheared, all sizes up to 14 ft.

Grafted Junipers, good assortment, up to 7 to 8 ft.

Chinese Elm Seedlings and Trees in all grades. Write for special prices.

KANSAS EVERGREEN NURSERIES
Manhattan, Kan.

Nursery Stock at Wholesale Only.

ARTHUR DUMMETT
61 W. Grand St. Mount Vernon, N.Y.

**PEAR, APPLE, MULBERRY SCIONS
FOR GRAFTING**, No. 1, \$2.75 per 1000.
Boxwood liners, Brown Turkey Figs, 3 to 4 feet; Cherry, Papershell Pecans
and Cherry trees.

Write for quotations.

EMPIRE NURSERY and ORCHARD
Bellefonte, Ala.

**GRAPEVINES, GOOSEBERRIES
CURRENTS and BERRY PLANTS**

Growing for the wholesale trade since 1899. The quality of our plants will please your most critical customers. Get our attractive quotations before placing your order.

THE F. E. SCHIFFERLI & SON NURSERIES
Fredonia, N.Y.

Higher labor costs, taxes, etc., will be reflected in higher wholesale and retail prices. You will earn extra profits, if you book your initial requirements early.

Send Want List for Quotations

One of America's Foremost Nurseries

MOUNT ARBOR NURSERIES

SHENANDOAH, IOWA



E.S. Welch photo.

"Diseases of Nursery Plants," by Dr. Luther Shaw, professor of botany; "Some Insects Attacking Nursery Stock and Their Control," by C. F. Smith; "Phony Peach Disease," by J. A. Harris; "Landscape Design," by W. F. Hoffman, superintendent of grounds at the college; "Practical Plant Breeding," by Thomas Little, of the United States bureau of plant industry; "Transplanting, Pruning and Training Nursery Plants," by Churchill Bragow, of Orton Plantation, and "The New Nursery Research Program," by Prof. M. E. Gardner.

Motion pictures in color of azaleas and camellias at Orton were shown in the evening by Mr. Bragow.

Coöperation in the war program was pledged by the nurserymen. In response to a letter from Richard P. White, executive secretary of the American Association of Nurserymen, the production of fruit tree nursery stock was promised to aid in the victory garden campaign.

Walter E. Campbell, Greensboro, presided at the business meeting of the association. Prof. M. E. Gardner, head of the department of horticulture of the state college, was in charge of the general sessions.

It was announced that the association will hold its summer meeting at Chapel Hill sometime in July. Dr. L. D. Bauer, director of the North Carolina experiment station, spoke at a luncheon session. A number of the attending nurserymen remained over for the evening of the final day to see a Technicolor motion picture presented through the coöperation of P. F. Kiel, of the General Chemical Corp., New York.

Other features of the final day's program included a welcome to North Carolina State College, by Col. John W. Harrelson, administrative dean, and talks by C. H. Branstrom, of the state department of agriculture, and J. A. Harris, C. F. Smith, Dr. E. R. Collins, J. G. Weaver, L. G. McLean and Professor Gardner, all of the college staff.

Professor Gardner and Mr. McLean explained the new nursery research program which the North Carolina experiment station is starting under Mr. McLean's supervision. B. J.

GERALD F. NELSON, vice-president of Swain Nelson & Sons Co., Glenview, Ill., has enlisted in the marine corps. He is 32.

RASPBERRY PLANTS

Taylor

Latham

Chief

Marcy

Indian Summer

★ ★ ★ *

RED LAKE Currant

★ ★ ★ *

FOREST TREE SEEDLINGS

Ash

American Elm

Chinese Elm

Soft Maple

★ ★ ★ *

Send for Trade List.

ANDREWS NURSERY CO.

Faribault, Minn.

BOYSENBERRIES

and

NECTARBERRIES

No. 1 tips — Any Quantity

TRANSPLANTS

A few thousand.

Write for prices.

QUITMAN NURSERY

Quitman, Ga.

HARDY SMALL FRUITS

Raspberries, Blackberries, Dewberries

Grapes, all varieties

Spring Delivery

CUTLER & DOWNING CO.

Benton Harbor, Mich.

Wholesale Growers of

Grapevines, Currants, Gooseberries,

Blackberries and Raspberries

Let us quote on your requirements

FOSTER NURSERY COMPANY, INC.

69 Orchard St. Fredonia, N.Y.

SMALL FRUIT PLANTS

Evergreens—Shrubs

Lining-out Stock

Send for Complete Trade List

W. N. SCARFF'S SONS

New Carlisle, O.

Oklahoma Meeting

The meeting of the Oklahoma State Nurserymen's Association, held January 21 and 22 at the Hotel Huckins, Oklahoma City, opened with the singing of "America" by "Buddy" Garland, son of Fred F. Garland, Garland Landscape Nursery, Oklahoma City.

H. L. Eddy, of the Oklahoma City chamber of commerce, told of what would be exacted of the members, both as nurserymen and as patriotic citizens. In responding, Jack Foote, Durant Nursery Co., Durant, assured Mr. Eddy that the members of the association would fulfill all requirements.

Emmett Barbre, manager of the Retailers' Association, told of a conference of businessmen at Washington, D. C. His opinion is that a more drastic attitude is needed for the protection of the small businessmen of the nation. Mr. Barbre stated that recent surveys made by Dun & Bradstreet, Inc., showed that forty-one per cent of all business concerns were just on the border line of being listed as good credit risks; of this forty-one per cent a recent survey showed that where credit had been given this class, there was only a loss of one-half of one per cent.

C. Y. Higdon, Oklahoma City, recounted the activities of the association during the past year, mentioning an increase in membership.

A committee was appointed to formulate resolutions of respect and condolence for the two members who had died during the year, W. T. Fain, Bethany, and J. T. Wigley, Davis.

The legislative committee reported that there had been an act passed by the Oklahoma legislature relative to the social security law. The freight rate committee report was made by J. Frank Sneed, Oklahoma City, who stated that as a result of a meeting held July 12 at St. Louis, a greatly reduced rate had been put into effect by trunk lines. This reduction, in some cases, amounted to as much as forty-five per cent on balled and burlapped nursery stock.

W. D. Kenyon, of Kenyon's Nursery, Oklahoma City; N. D. Woods, of Woods & Rey Nursery, Oklahoma City, and Jack Foote were appointed as an election committee.

The noonday luncheon was highlighted by a talk by J. T. Foote, who

said that nurserymen could be depended upon to take their part in the war and to lend all the assistance possible toward the production of fruits and vegetables.

The most important speaker was Edwin J. Stark, Louisiana, Mo., president of the American Association of Nurserymen. Mr. Stark said that it was time to sell trees. The tire and car shortage has relieved nurserymen of their biggest competitor, spare-time driving. Farmers and the public have more money than they have had in years; yet they do not have tires or cars to engage in their favorite pastime. Now is the time to sell them trees and shrubs. It will not only improve business, but it will give people something to do in their gardens and flower beds.

Mr. Stark told of the use of nursery stock for camouflage. He said that a bomber must release its load four and one-half to six miles from the point it expects to hit and that tests prove the value of trees in fooling bombers and concealing objects from bombers and observation planes.

He also spoke of how nurserymen were taking an active part in the drive for victory gardens. He urged all nurserymen to become identified with their state association.

Dr. J. C. Ratsek, Tyler, Tex., gave a talk of a technical nature, including rules for planting and pruning and some methods of testing soil.

Short talks were made by Harry Rigdon, extension forester, Oklahoma Agricultural and Mechanical College,

Stillwater; Henry Walter, of the Oklahoma City park department, and Glen R. Durell, of the Oklahoma state forestry division.

The banquet honoring Edwin J. Stark by the past presidents of the Oklahoma State Nurserymen's Association was served to sixty-five guests. C. E. Garee, of the Noble Nursery, Noble, a past president, was master of ceremonies.

The second day's program was started by the landscape men of the association. This group is composed of the nurserymen in the state association who maintain landscape services. The program was led by Arthur Merkle, Southwestern Gardens, Oklahoma City, and N. D. Woods, who have acted as secretary and president, respectively, since last January. The organization was made permanent, with N. D. Woods, president; Philip Thomas, Thomas Nursery, Tulsa, vice-president, and Arthur Merkle, secretary. Oklahoma City was designated as the home office and the meetings are to be held during the regular meetings of the Oklahoma State Nurserymen's Association. A temporary constitution for organization was adopted, and a committee was appointed to draft a permanent constitution and by-laws.

The charter members subjected themselves to a test to establish their qualifications for membership. The tests included submission of drawings and designs, specifications, shrub lists

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We can ship at any time.

WELLER NURSERIES CO., Inc.
Holland, Mich.

JUNIPERUS VIRGINIANA

Platte River Type.

2-year transplants.

Per 100 Per 500

18 to 24 ins.....	\$16.00	\$70.00
12 to 18 ins.....	14.00	60.00
9 to 12 ins.....	12.00	50.00

RHUBARB ROOTS

(Whole roots), immediate or later shipment.

Per 100 Per 1000

1 1/2 to 2 -in.....	\$3.00	\$28.50
1 to 1 1/2 -in.....	2.50	20.00
% to 1 -in.....	2.00	15.00

CHINESE ELM TRANSPLANTS

Well rooted, well branched, good caliper.

Per 10 Per 100

6 to 8 ft.....	\$3.50	\$30.00
5 to 6 ft.....	2.25	18.50
4 to 5 ft.....	1.65	15.00

LOMBARDY POPLAR

1-year whips.

Per 100 Per 1000

5 to 6 ft.....	\$8.50	\$75.00
4 to 5 ft.....	6.50	55.00
3 to 4 ft.....	4.50	40.00

ASPARAGUS

Mary Washington.

2-yr. No. 1 plants, per 100.	80c	per 1000.
\$7.00; per 10,000.	\$65.00	

HORSE-RADISH

White Bohemian.

Per 100 Per 1000

Large crowns	\$3.00	\$25.00
Cuttings, 6-in.	1.00	9.50

Above stock first-class in every respect.
Cash with order. No charge for packing.

PRITCHARD NURSERIES, Ottawa, Kan.

GRAFTED STOCK

Strong healthy plants from $\frac{3}{4}$ -in. pots suitable for planting direct in nursery rows. Ready for shipment about May 1, 1942.

JUNIPERUS	Per 100 Per 1000
chin. columbaria glauca	\$25.00 \$225.00
chin. mosaica	25.00 225.00
chin. oliveriana Kallays compacta	25.00 225.00
chin. pyramidalis	25.00 225.00
excelsa stricta	25.00 225.00
squamata Meyeri	25.00 225.00
virg. Burkii	25.00 225.00
virg. Canariensis	25.00 225.00
virg. Canariensis Kallays type	25.00 225.00
virg. glauca	25.00 225.00
virg. globosa	25.00 225.00
virg. Keteleeri	25.00 225.00
virg. Schottii	25.00 225.00

PICEA	Per 100 Per 1000
pungens Kosteriana	30.00 275.00
pungens Moerheimii	35.00 325.00

Write for our complete list of field-grown lining-out evergreens and rooted cuttings from pots. We have a complete list of all popular varieties.



The Kallay Bros.
Company

Painesville, Ohio

JUNIPER GRAFTS

Strong grafts suitable for lining out in field, on Juniperus Virginiana understocks, from $\frac{3}{4}$ -in. pots, ready for delivery April 15, 1942.

Juniperus Communis	Juniperus Kosteri
Juniperus Glauca	Juniperus Horizontalis
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Juniperus Keteleeri	Juniperus Sabina
Juniperus Dundee Pyr.	Juniperus Van Horne
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Grafts are grown $\frac{3}{4}$ -in. pots.

100 or a variety, \$22.00 per 100.

500 or over, \$20.00 per 100.

Boxing extra at cost. F.O.B. Louisville, Ky.

Terms: Thirty days on approved credit, or cash with order we will box free.

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EVERGREENS

Fine assortment of the best types of B&B Evergreens.

HOLTON & HUNKEL CO.

Milwaukee, Wis.

Nursery at Brown Deer, Wis.

MUGHO PINE

Per 100	Per 1000
2-yr. edig. 2 to 4 ins.	\$2.50 \$20.00
3-yr. T. 3 to 5 ins.	3.50 30.00
4-yr. T. 4 to 6 ins.	6.00 50.00
4-yr. T. 6 to 8 ins.	7.00 60.00

Beetle certified. Terms: Cash. F.O.B. Nurseries.

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HEADQUARTERS FOR EVERGREEN GRAFTS, TRANSPLANTED EVERGREENS, SHRUB LINERS. RARE ITEMS YOU DO NOT FIND IN MOST LISTS! Write!

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AMERICAN NURSEYMAN
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and proof of landscape work previously completed. No one was permitted to become a member until he had been approved by the examining board. Sixteen charter members were enrolled, and qualified persons in surrounding states are invited to join.

Dr. Frank B. Cross, head of the department of horticulture of Oklahoma Agricultural and Mechanical College, outlined the victory garden campaign. He also showed a specimen pecan tree that had been treated with hormones for the stimulation of root growth and aid in transplanting. On exhibition were thirty-two plates of apples used at the college for classwork, and a prize of twenty of the plates offered to the nurseryman correctly naming the most varieties went to C. E. Garee, who named sixteen.

Dr. Cross then explained that field surveys were being made at Lake Blackwell to find a location to establish an arboretum.

It was decided that the summer meeting of the association will be held at Stillwater during the week of the farm congress. The advisory committee was appointed as a program committee to work with Dr. Cross.

Max Pfander, Oklahoma City; Jim Parker, Tecumseh, and A. W. Kenyon were appointed representatives to the state conference of the victory garden program.

The following officers were elected: President, Jack Foote; vice-president, N. D. Woods, and secretary-treasurer, J. A. Maddox, Oklahoma City. Serving on the executive committee will be Jack Foote, chairman; C. E. Garee, C. Y. Higdon, J. Frank Sneed, Leo Conard, J. T. Foote and J. A. Maddox.

Exhibits were made by the Arp Nursery Co., Tyler, Tex.; Willis Nursery Co., Ottawa, Kan.; Verhalen Nursery Co., Scottsville, Tex.; Woods & Rey Nursery, Oklahoma City; Woerz Bros., Ardmore, and C. E. Garee, Noble.

A unique display showing plants attacked by San José scale was made by Dr. F. A. Fenton, of the department of entomology, Oklahoma Agricultural and Mechanical College. Glen R. Durell, head of the Oklahoma state forestry department, had an interesting display showing forestry practices. The nursery and orchard department of the state board of agriculture, J. Reese Dews, chief nursery inspector, arranged a display of diseases attacking nursery stock.

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We offer in Carload Lots:

APPLE, 1 and 3-year
CHERRY, 1 and 2-year
PEACH, Leading Varieties
ELM, American, 8 to 10 ft. up to 3-in.

ELM, Moline, 3-in. up to 5-in.
ELM, Vase, 3-in. up to 5-in.
MAPLE, Norway, 8 to 10 ft. up to 5-in.
WILLOW, Thurlow, 8 to 10 ft. up to 3½-in.
Large stock of Evergreens up to 5 to 6 ft.

Juniper, Pfitzer's, 1200 3 to 5 ft.
Shrubs, Peonies, Roses, etc.

C. M. Hobbs & Sons, Inc.

Bridgeport, Indiana
Oldest and Largest Nursery in Indiana
Established 1875

NORWAY MAPLES

ACER PLATANOIDES Per 1000

12 to 18 ins.....	\$12.00
18 to 24 ins.....	18.00
2 to 3 ft.....	35.00
3 to 4 ft.....	50.00
4 to 5 ft., transplanted,	\$15.00 per 100

SPECIAL: Send 25% cash with order, or 10% discount for full cash with order.

STATE ROAD NURSERY

State & Sprout Roads, R. 3,
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COLORADO BLUE SPRUCE

2-year seedlings

Per 100	Per 1000
(2-0) 0 to 2 ins.....\$2.00	\$9.00

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Seedlings grown from seeds from cones hand picked from blue trees in Colorado.

Michigan-grown seedlings.

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Greatest Assortment of Large and Small Specimens in U. S. 10 inches to 6 feet.

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Mrs. R. P. Boyer High Point, N. C.

LINING-OUT STOCK B & B EVERGREENS

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T. G. OWEN & SON, INC.
South's Largest Florists and Nurserymen
Columbus, Miss.

Coming Events

ON THE CALENDAR.

February 3 and 4, Wisconsin Nurserymen's Association, Hotel Schroeder, Milwaukee.

February 3 and 4, Pennsylvania Nurserymen's Association, Penn-Harris hotel, Harrisburg.

February 3 and 4, Virginia Nurserymen's Association, Jefferson hotel, Richmond.

February 3 to 5, New England Nurserymen's Association, Hotel Kenmore, Boston.

February 9 to 13, short course in nursery management, New Jersey college of agriculture, Rutgers University, New Brunswick, N. J.

February 11 and 12, Tennessee State Nurserymen's Association, Cherokee hotel, Cleveland.

February 12 and 13, West Virginia Nurserymen's Association, Waldo hotel, Clarksburg.

February 13 and 14, nurserymen's conference, Cornell University, Ithaca, N. Y.

February 16 and 17, Northern Retail Nurserymen's Association, Andrews hotel, Minneapolis, Minn.

February 17 and 18, short course for nurserymen, Purdue University, La Fayette, Ind.

February 17 to 19, short course for nurserymen, Albany hotel, Denver, Colo.

February 24 and 25, Maryland Nurserymen's Association, in connection with the University of Maryland short course, at the University of Maryland, College Park.

VIRGINIA PROGRAM.

The program for the winter meeting of the Virginia Nurserymen's Association, to be held February 3 and 4 at the Hotel Jefferson, Richmond, is as follows:

FEBRUARY 3, 6:30 P. M.

Dinner and floor show.

Welcome to Richmond, by Dr. John Wendell Bailey, University of Richmond. Moving picture, presented by the General Outdoor Advertising Co.

Committee meetings: Executive, A. S. Gresham, chairman; membership, W. Y. Smith, chairman; legislative, T. D. Watkins, chairman, and program, D. E. Laird, chairman.

Meeting of the Virginia chapter of the American Association of Nurserymen, T. D. Watkins, chairman, and E. M. Quillen, delegate.

FEBRUARY 4, 9 A. M.

Meeting called to order, by S. H. Thrasher, president.

"War and the Nursery Industry," a written message from the American Association of Nurserymen.

Reports of committees.

"City Beautification and Plants Particularly Good for This Purpose," by Fred Heutte, superintendent of parks, Norfolk.

"You and Your Advertising," by Daniel J. Foley, J. Horace McFarland Co., Harrisburg, Pa.

"Improved Salesmanship," by Herbert Hill, Life Insurance Co. of Virginia.

Round-table discussion of nursery problems, led by John Williams, with G. T. French and Morris Kearns assisting.

FEBRUARY 4, 1 P. M.

Luncheon. After-luncheon address, by Rev. A. E. Acey, Richmond.

"Nurserymen and the Victory Garden Program," by A. G. Smith, Jr., extension division, Virginia Polytechnic Institute.

"How You Nurserymen Can Assist Your Local Garden Clubs in Their Defense Garden Programs," 5-minute talks by three members of the Richmond Federation of Garden Clubs.

NEW ENGLAND PROGRAM.

As announced in the issue of January 15, the thirty-first annual meeting of the New England Nurserymen's Association will be held February 3 to 5 at the Hotel Kenmore, Boston, Mass. February 4 will be educational day. The complete program follows:

FEBRUARY 3, 1 P. M.

Convention called to order.

Address of welcome, by L. E. Whitney, manager, Hotel Kenmore.

Response to address of welcome, by Edmund Mezitt, vice-president, Weston, Mass.

Roll call.

President's annual address, by Louis Vanderbrook, Manchester, Conn.

Reports of the secretary and treasurer.

"The Nursery Industry Under a War Economy," by Frank S. LaBar, vice-president, American Association of Nurserymen, Stroudsburg, Pa.

"Gardens for Victory," by Joseph J. Lane, Condé Nast Publications, New York.

Reports of standing committees: Legislative, by Seth Kelsey; vigilance, by Lloyd Hathaway; publicity, by Edmund Mezitt, and transportation, by E. M. Bush.

Reports of special committees.

LINING-OUT EVERGREENS

	Per 100	Per 1000
ILEX Opaca, American Holly.	\$1.00	\$ 8.00
JUNIPERUS Virginiana, Redcedar.	.60	5.00
TSUGA Canadensis, Hemlock.	1.00	8.00
PINUS Ephelma, Shortleaf Pine.	.75	6.00
KALMIA Latifolia, Mountainlaurel.	1.50	12.00
RHODODENDRON Maximum.	2.00	15.00
WANTED: 1000 Berckmanns Golden Arborvitae liners.		

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Talton Nurseries—Morton Bros.

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Early booking for spring shipments.
Hall's Japanese Honeyuckle, transplanted, 1 and 2-year. Redcedar, transplanted, 8 to 15 inches. Many varieties in Lining-out Stock. Send list of wants.

FEBRUARY 4, 8 A. M.

Registration.

"Meeting the Changing Cost Problems of Nursery and Landscape Materials," by Edward H. Costich, Hicks Nurseries, Inc., Westbury, N. Y.

Plant identification contest.

"Interpretation of Botanical Terms," by Dr. Leon Croizat, Arnold Arboretum, Jamaica Plain, Mass.

FEBRUARY 4, 2 P. M.

"How to Build a Lawn," by Prof. Lawrence S. Dickinson, Massachusetts State College, Amherst.

"Selling Under 1942 Conditions," by F. R. Kilner, editor, American Nurseryman, Chicago, Ill.

Award of plant identification contest prize.

FEBRUARY 4, 6:30 P. M.

Annual banquet and entertainment.

FEBRUARY 5, 9:30 A. M.

Reports of standing committees: Membership, by Lester Needham; education, by Donald Wyman; trade exhibits, by Edmund Mezitt; trade relations, by Seth Kelsey, and resolutions, by Alec Stovekin. Reports of special committees.

Election of officers.

Address, by William Flemer, chairman, camouflage committee of the A. A. N.

"New England Business and the War," by Ray M. Hudson, industrial executive of the New England council.

FEBRUARY 5, 1:30 P. M.

Address, by Norman McDonald, secretary, Massachusetts Taxpayers' Association.

Address, by Charles Hess, chairman of region 1, American Association of Nurserymen; report of regional meeting.

New and unfinished business.

Introduction of officers for 1942.

MARYLAND PROGRAM.

The annual meeting and short course of the Maryland Nurserymen's Association will be held at the Uni-

Special For February

Tree Seedlings Nursery-Grown

	Per 1000	Per 10,000
Black Locust Seedlings		
6 to 12 ins.	\$ 2.25	\$20.00
12 to 18 ins.	3.00	25.00
18 to 24 ins.	5.00	45.00
Sassafras Seedlings		
12 to 18 ins.	5.00	40.00
18 to 24 ins.	7.00	60.00
2 to 3 ft.	10.00	....
Tulip Poplar Seedlings		
6 to 12 ins.	3.50	30.00
12 to 18 ins.	5.00	40.00
18 to 24 ins.	7.50	....
American Beech Seedlings		
6 to 12 ins.	3.00	25.00
12 to 18 ins.	6.00	50.00

	Per 1000	Per 10,000
Vinca Minor		
Transplanted, good clumps, heavy	\$16.00	....
Transplanted, good clumps, medium	12.00	....

Ask for our Wholesale Price List.

HIGHWAY GARDENS

NURSERY

McMinnville, Tennessee
On Highway 55, R. 3

COMPLETE ASSORTMENT OF NURSERY STOCK

APPLE—Good variety list.

SHRUBS—Well grown, thrifty.

ALPINE Currant—Our specialty.

PHLOX—Field-grown and lining out.

SHADE TREES—Excellent roots.

EVERGREENS—B&B.

EVERGREENS—To line out.

Our new list out soon. Write for quantity prices.

SHERMAN NURSERY CO.

Charles City, Iowa

WE CAN SUPPLY IN EITHER LARGE OR SMALL QUANTITIES

Acer Rubrum, 5 to 6 and 6 to 8 ft.

Fraxinus Lanceolata, 5 to 6 and 6 to 8 ft.

Quercus Alba, 5 to 6 and 6 to 8 ft.

Quercus Phellos, 5 to 6 and 6 to 8 ft.

Quercus Rubra, 5 to 6 and 6 to 8 ft.

Quercus Volutina, 5 to 6 and 6 to 8 ft.

Rhus Canadensis, 18 to 24 ins., 2 to 4 and 4 to 6 branches.

Rhus Canadensis, 2 to 3 ft., 2 to 4 and 4 to 6 branches.

Rhus Glabra, 3 to 4 ft., 2 to 4 branches.

Rhus Glabra, 4 to 5 ft., 2 to 4 branches.

Rhus Glabra, 5 to 6 ft., 2 to 4 branches.

When you are in the market for the above stock, please write us for special cash quotations.

NOLERIDGE NURSERIES

R. F. D. 7 McMinnville, Tenn.

VIBURNUMS

2-yr. old - Strong Seedlings

LENTAGO

MOLLE

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Write for prices

HINSDALE NURSERIES, INC.
7200 S. Madison Rd., Hinsdale, Ill.

SHADE TREES

Per 10 Per 100

ACER RUBRUM. Red Maple

4 to 6 ft., well br. \$3.00 \$18.00

ASIMINA TRILoba. Paw-paw.

4 to 5 ft., well br. 3.00 20.00

CERCIS CANADENSIS.

Redbud. 4 to 5 ft., well br. 2.00 15.00

PRUNUS SEROTINA. Black

Cherry. 6 to 8 ft., well br. 4.00 30.00

Evergreen Garden Nursery
McMINNVILLE, TENN.

NORTHERN-GROWN NURSERY STOCK

Evergreen Liners — Specimen Evergreens, B&B — Hardy Fruit Trees —

Hardy Apple Seedlings — Ornamental Shrubs — Lining-out Shrubs, Trees and

Vines. Write for price list.

J. V. BAILEY NURSERIES
Dayton Bluff Sta. St. Paul, Minn.

versity of Maryland, College Park, February 24 and 25.

Among the topics to be discussed are psychology of salesmanship, landscape gardening and ornamental gardening in the victory garden program.

Among those invited to talk to the nurserymen are Dr. H. C. Byrd, president of the university; Dr. T. B. Symons, state director of extension service; Mrs. Dorothy E. Hansell, editor, Gardeners' Chronicle of America; Prof. M. E. Bottomley, University of Cincinnati; Ernest Hemming, Easton; Alex Cumming, Jr., Bristol, Conn., and Rex. D. Pearce, Moorestown, N. J.

A feature of the program will be an exhibit hall for horticultural materials as well as commercial exhibits of the better insecticides, fungicides and other products essential to the nursery business.

WEST VIRGINIA PROGRAM.

The midwinter meeting of the West Virginia Nurserymen's Association, to be held at Clarksburg, February 12 and 13, will be devoted mainly to the business of the association and of the individual members. The Waldo hotel will be headquarters for the meeting.

During the afternoon of February 12 visits will be made to neighboring nurseries and places of interest. There is to be no definite arrangement for these visits, but it is hoped all attending will visit the nursery of W. S. Tetrick & Son, at Enterprise, and the Bridgeport cemetery, at Bridgeport. Mr. Tetrick operates a nursery in which thousands of evergreen cuttings are being propagated. The Bridgeport cemetery has recently been landscaped and provided with buildings. Additional time will be spent in visiting these points on Friday afternoon, February 13.

A meeting will be held at the hotel, Thursday evening, February 12. At that time committees will be appointed to transact the business of the association and report back to the association the following day. There will be a discussion of the various problems of the nurserymen brought about by our entrance into the war. The following morning will be devoted to a meeting, followed by a luncheon at the hotel at 12:30.

From reports received by the secretary a record attendance is expected. The members are looking forward to

JEWELL NURSERIES, INC.

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Write for Prices

Pyramidal Arborvitae Liners

in 2½-inch pots

Buddleia

**Charming, Dubonnet,
Hartwegi, Ille de France**
in 2¼-inch pot liners

Chinese Elm Seedlings

12 to 18 ins., 18 to 24 ins., 2 to 3 ft.

Jewell Quality for 75 Years

VERHALEN NURSERY CO.

Scottsville, Texas

Pfitzer's Juniper

in all sizes

Upright Evergreens

up to 3 to 4 feet in variety

WHOLESALE ONLY

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CHINESE ELM TREES

All sizes, 3 feet to 6-inch caliper.

Special Prices in large quantities.

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BIOTA AUREA NANA

Berckmanns Golden Arborvitae

For immediate delivery

Per 100 Per 1000
Rooted Cuttings \$ 8.00 \$60.00
(Suitable for potting or the field)

2½-inch pots 10.00 90.00

Write for our complete list

BAKER BROS. NURSERY

Box 828

Fort Worth, Texas

this meeting as an opportunity of transacting many items of business which would otherwise necessitate their traveling from point to point, and the meeting will therefore save tires and use of the automobile for the members.

CORNELL PROGRAM.

A conference of nurserymen of New York state, to be conducted by the department of floriculture and ornamental horticulture, Cornell University, Ithaca, will be held at the university February 13 and 14. The program follows:

FEBRUARY 13, 8:30 A. M.

Registration.

"New Developments in Seed Storage and Germination," by Leland G. Cox.

"New Developments in Vegetative Propagation," by Alfred M. S. Pridham.

"Design of Plant Groups for Small Properties," by Joseph P. Porter.

"Present-day Materials and Construction for Small Properties," by Joseph P. Porter.

"Local Hardiness of Woody Ornamentals," by John F. Cornman.

"Progress in the Cornell Arboretum," by Ralph W. Curtis.

FEBRUARY 13, 1 P. M.

Voting on landscape models and contest on plant identification.

Civilian defense rally, Bailey Auditorium; military salute and courtesy for the governor of New York. Music by the Cornell R. O. T. C. band; patriotic songs, led by Paul Weaver.

Address, by Herbert H. Lehman, governor of New York.

"Research and Extension Activities in the Present Emergency," by Dr. C. E. F. Guterman, director of research, Cornell University.

Tour of departmental activities, led by Laurence H. MacDaniels.

FEBRUARY 13, 6:30 P. M.

Dinner, Terrace room, Willard Straight Hall.

"Customer Contacts," by C. E. Love, instructor of sales, International Business Machine Corp., Endicott, N. Y.

Round-table discussion—discussion on voting on landscape models, summary of plant identification contest; question box—soil tests, disease and pest control, unusual plant materials, nursery practices, tree repair, hedges, plants for bird sanctuaries, salt spray damage, etc.

FEBRUARY 14, 8 A. M.

Discussion of individual problems with staff members.

COLORADO SHORT COURSE.

The Colorado short course for nurserymen will be held at the Albany hotel, Denver, February 17 to 19.

Dr. L. C. Chadwick, Ohio State University, Columbus, will head the out-of-state speakers. Professors George Beach and L. R. Bryant, of

the department of horticulture, Colorado State College, Fort Collins, will discuss problems relative to the state. Dr. A. C. Hildreth, of the Cheyenne horticultural field station, Cheyenne, Wyo., will review the work he is doing on regional problems.

NEW JERSEY COURSE.

The fourth annual short course in nursery management of the New Jersey college of agriculture, Rutgers University, New Brunswick, will be held February 9 to 13. The theme of the course this year will be "The Nurseryman in Defense and Reconstruction."

The program has been developed from the point of indicating the part nurserymen can play not only in defense efforts during the emergency, but also in the problems of the reconstruction period which will follow.

Prof. Frank G. Heylar, director of resident instruction, college of agriculture, will open the course with an address of welcome. Also at the opening day's session Maj. R. P. Breckinridge, engineer corps, camouflage section, United States Army, will address the group on "Military Defense and the Nurseryman." His remarks will be followed by a talk on "Industrial Defense and the Nurseryman," by Granville Rickard, chairman, National Camouflage Council.

February 10, talks by members of the Rutgers staff will include "Soils of New Jersey and Their Native Plants," by Dr. Linwood Lee; "Adjusting the Soil to the Plant," by Dr. F. E. Bear, and "Putting New Life into the Soil," by Dr. S. A. Waksman.

General topics for the panel discussion scheduled for February 11 are plant materials in defense, plants that will grow in New Jersey and under similar conditions, preparing the nursery for the postwar period and the place of native plant materials in the nursery. Participating are to be

MAHONIA AQUIFOLIUM

(Oregon-Washington Hollygrape)

Glossy broad-leaved evergreen foliage, large panicles of yellow flowers followed by large clusters of blue berries. Hardy anywhere in the United States.

Per 1000
1-yr. seedlings, 2 to 4 ins., row run... \$10.00
2-yr. seedlings, 6 to 12 ins., row run.... 20.00
2-yr. seedlings, 12 to 18 ins., row run.... 30.00

ALSO BUSHY SPECIMEN PLANTS. PRICES QUOTED ON REQUEST.

We specialize in growing Mahonia. Shipments made to any point in the United States with no packing charge. Wholesale price list of general nursery stock sent on request.

Mount Vernon Nursery, Mount Vernon, Wash.

BLUE LAWSON CYPRESS

Chamaecyparis allumi

We have an exceptionally fine stock of this popular conifer; good color, well shaped, compact, every plant a specimen. Field-grown plants.

Each	
B&B 2 to 3 ft.....	\$1.25
B&B 3 to 4 ft.....	1.55

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GOOD WESTERN-GROWN NURSERY STOCK

Fruit Tree Seedlings
Flowering Ornamental Trees
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Grown right and packed right.
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A. D. Taylor, landscape architect; C. F. Wedell, New York State School of Applied Agriculture, Farmingdale; William Flemer, Jr., and Russell M. Bettes, Princeton Nurseries, Princeton, N. J.; Oliver A. Deakin, New Jersey state highway department; Donald Creighton, Convent, N. J., and C. H. Connors, B. C. Blackburn, R. B. Farnham and V. J. Triolo, of the department of ornamental horticulture of the university.

A talk on "Grasses for Protective Concealment and Morale Maintenance," by Dr. H. B. Sprague, will open the session February 12. Dr. C. C. Hamilton will discuss "Control of Insects on Trees and Shrubs as Indicated by War Conditions." "Defense Against Disease" will be the topic of Dr. P. P. Pirone.

On the final day "Gardening for Victory" will be the subject for discussion. Addresses will be given by Dr. William H. Martin, dean of the college of agriculture and director of the New Jersey agricultural experiment station, and Dr. Robert C. Clothier, president of Rutgers University, as well as other speakers.

The registration fee is \$5 and applications should be made to Prof. F. G. Heylar, director of resident instruction, college of agriculture, New Brunswick. The enrollment is limited to 100.

CALIFORNIA GROUP ELECTS.

J. Fred Wittsche was elected president of the Superior California Nurserymen's Association at a meeting January 7 in the Hotel Sacramento, Sacramento. Other officers are vice-president, Gene Fowler; secretary-treasurer, Charles G. Armstrong, and directors, Ray Stuart and Louis Vistica.

W. J. Cecil, director of the state department of agriculture, was the main speaker. Others were F. Scheid and Frank Tuttle.

ORGANIZE AT LOS ANGELES.

Nearly 150 nurserymen met at the Barker hotel, Los Angeles, Cal., January 13, to hear plans for a live trade group in southern California. Tom Edwards, of Roy F. Wilcox & Co., Montebello, is acting head of the organization. A committee, including W. Tomlinson, of the Select Nursery, Whittier; Chester Baake, of the Baake & Son Nursery, West Los Angeles;

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Excellent quality guaranteed.
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2 to 3-ft. to 6 to 8-ft. grades.
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Single and Double.
No. 1 and No. 2 heads.
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5 to 6-ft. to 10 to 12-ft. grades.
Pink-flowering
30 to 36-in. to 6 to 6-ft. grades.
ELM. Chinese
1-yr. seedlings to 10 to 12-ft. grades.
GOLDEN CHAIN. Laburnum Vossii
3 to 4-ft. whips to 8 to 10 ft. br.
HAWTHORN. Paul's Scarlet
Double Pink and Double White
4 to 5-ft. to 8 to 10-ft. br. grades.
MAPLE. Japanese Redleaf
24 to 30-in. and 30 to 36-in. grades.
MAPLE. Japanese Laceleaf
12 to 18-in. and 18 to 24-in. grades.
MAPLE. Norway
5 to 6-ft. whips to 10 to 12-ft. br. grades.
Sawdustier
Silver
5 to 6-ft. to 8 to 9-ft. whips.
5 to 6-ft. to 10 to 12-ft. br. grades.
MOUNTAIN ASH. European
5 to 6-ft. to 10 to 15-ft. grades.
PLANE TREE. European and American
6 to 8-ft. to 10 to 12-ft. grades.
PLUM. Flowering
Bilreana, Plissardi, Thundercloud, Trilobata, Vesuvius.
All Grades.
TULIP TREE
5 to 6-ft. to 8 to 10-ft. grades.

ALMOND. both pink and white-flowering.
18 to 24-in. to 2 to 4-ft. grades.
AZALEA. Altaclarensse and Mollis
10 to 12-in. to 14 to 30-in. grades.
TRUEHEDGE COLUMBERRY
(Plant Patent No. 110)
10 to 12-in. to 24 to 30-in. grades.
VIBURNUM. Carlesii
15 to 18-in. and 18 to 24-in. grades.
PRIVET. Two year.
California, English and Loddense.
WISTERIA. Grafted 2 and 3-yr.
Double Violet, Single Purple and Single Pink.
TREE WISTERIA. Grafted.
Double Violet, Single Purple and Single Pink.
FRUIT TREES
A complete list of 1-yr., 2-yr. and 3-yr.
SMALL FRUITS
A good supply of berry plants.
FRUIT TREE SEEDLINGS
Apple, Mahaleb, Mustard, French Pear,
Myrobalan Plum and Rooted Quince
Cuttings.
SHADE TREE SEEDLINGS
European White Birch
Norway Maple
Chinese Elm
Hawthorn, oxyantha
ROSES
A fair supply in most varieties.

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Portland, Oregon

The necessity of making the im-

portance of the nursery trade felt during the next few years was stressed in several informal talks by representative nurserymen. This, it was felt, can only be done by concerted effort and by coöperation in every possible way with the defense effort.

TRI-COUNTY CHAPTER.

A Tri-County chapter of the California Association of Nurserymen was formed January 23 at a dinner meeting at the California hotel, Santa Barbara. Louis B. Lagomarsino and Charles G. Armstrong, of Sacramento, and Frank Tuttle, of San Jose, were present to help with the organization.

H. T. Campbell, Santa Barbara, was elected temporary president, and Bert T. Kallman, Santa Barbara, was elected temporary secretary and treasurer.

It was decided to have another meeting in two weeks at Ventura and a few weeks later at San Luis Obispo to complete the Tri-County organization.

Bert T. Kallman, Sec'y.

E. B. CHENOWETH has his hands full at the Mount Vernon Nursery, Mount Vernon, Wash., now that his son Jack, who has been handling the office work, has gone to war.

INFORMATION on the planting and growing of roses was presented by C. G. Tanner, of the Tanner Nurseries, Rancho Santa Fe, Cal., to the Carlsbad Garden Club, Carlsbad, at a recent meeting.

AT the dinner meeting of the Central California Nurserymen's Association, January 13, at the Claremont hotel, Berkeley, Howard E. Gilkey showed colored pictures of his recent trip to Mexico. Clarence Perkins, recently elected president of the association, presided.

A. H. STEINMETZ, of the Portland Wholesale Nursery Co., Portland, Ore., who made a short trip to California the latter part of January, found the nurserymen there rapidly recovering from the excitement caused by the war and anticipating a good spring business. Wholesale business has so far been better than retail on the coast, and he thinks there is an opportunity to help the industry by the medium of the national victory garden program.

SOUTHWESTERN NEWS.

Fred P. Mosteller, who operates the Sunnyside Nursery, Wichita, Kan., reports that Kansas state highway 15 has been rerouted to take in a part of his nursery land.

For the past five years the federal government has maintained a nursery at Abilene, Kan., for the production of seedlings for the shelter belt. On March 30 this nursery will be moved to Hutchinson, Kan. Twenty-five men have been employed at the nursery, which has produced millions of trees.

To provide more land for the expansion of its municipal airport, the city of Topeka, Kan., has purchased twenty acres of land from the Kaw Valley Nurseries, owned and operated by J. P. Kamer & Son.

Scott Wilmore, owner of the W. W. Wilmore Nurseries, Denver, Colo., and Mrs. Wilmore recently returned home from a vacation of several weeks spent mostly in Florida. They also attended the Sugar Bowl game in New Orleans on New Year's day. Mr. Wilmore reports that his fall business was the best he has ever had.

Capitol Garden Nursery, Oklahoma City, Okla., has given up its grounds near the capitol building and has bought about twelve lots on May street about one block north of Thirty-ninth street. The headquarters of the firm will be on this location, and an office building is being constructed at the present time.

The Higdon Flower Shop & Nursery, Oklahoma City, Okla., are building two new units on the greenhouse range. C. Y. Higdon, the owner, says that 1941 was a good year.

E. H. Hoppert, extension horticul-

CONIFERS? Acres and Acres of Them!

Arborvitae
Cedar
Cypress
Juniper
Mugo Pine
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Spruce—Koster and Colorado
Yew, etc., etc.
A complete assortment of well cared for young shrubs
The Best To Be Had

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Apples— $\frac{1}{2}$ and $\frac{1}{4}$ -inch branched.

700	Black Rome Beauty
500	Cortland
1000	Delicious
130	Duchess of Oldenburg
200	Early McIntosh
580	Jonathan
150	Macoun
85	Lodi
1200	McIntosh Black
2200	McIntosh Red
100	Medina
285	Milton
1500	Red Delicious
1300	Red Rome Beauty
700	Rome Beauty
300	Yellow Transparent
200	Yellow Newtown
500	Hyslop crab
150	Transcendent crab

PEARS— $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ -inch.

450	Anjou
2300	Bartlett
300	Bose
40	Gardner
350	Kleffner
60	Old Home
350	Clapp's Favorite
530	Seckel

SOUR CHERRIES— $\frac{1}{2}$ to 1-inch.

340	Lateduke
75	Maydew
1500	Montmorency

APRICOTS— $\frac{1}{2}$ to $\frac{1}{3}$ -inch.

Chinese Wenatchee Perfection

PRUNES AND PLUMS

On Myrobalan root	$\frac{1}{2}$ and $\frac{1}{3}$ -inch.
130	Beauty
500	Branshaw
250	Cate
200	Early Italian
900	German
200	Imperial
1500	Italian (Fellenberg)
300	Peach plum
150	Satsuma

Complete line of 1-year trees including peaches and nectarines.

2-year quince and small quantities of other varieties of apples, pears, cherries, apricots and plums. Usual line of small fruits. Send your want list. A tree or a carload.

NUT TREES

Almonds English Walnuts
Grafted Franquette Walnuts
Chestnuts, American Sweet

ORNAMENTAL TREES

Following is a partial list of our shade and ornamental trees.

Cutleaf Birch European White Birch
Pink-flowering Dogwood Chinese Elm
Paul's Scarlet Hawthorn

Laburnum vossii Norway Maple Schwedler Maple
Red-flowering Peach Pink-flowering Peach
Pink-flowering Peach Rich's Double Weeping Pink Peach
Prunus pissardii Black Locust

FLOWERING CRABS

6 to 8 ft.	5 to 6 ft.	4 to 5 ft.	3 to 4 ft.	8 to 10 ft.
Bechtel's...	300	300	350	...
Caroline...	50	50	50	110 20
Eleyi...	135	50	120	60 45
Floribunda...	...	...	...	...
Heleiana...	100	50	25	20
Hopkins...	...	...	60	60
Kaderi...	50	35	15	20 8
Red Vein...	35	50	50	50 10
Parkman...	15	50	110	...
Purpurea...	160	90	25	65

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Watch the next issue for Perennials, Shrubs, Evergreens, Roses and vines.

RICH & SONS NURSERY

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PLANT MORE EVERGREENS IN 1942

The Nursery industry can aid in promoting citizen morale. VICTORY GARDENS will include trees, shrubs and flowers, which are real goods, yielding real returns in material and spiritual values. Even in her direst need England realizes how essential are plants in maintaining the morale of the people. With increasing interest in gardens assured for years to come, the industry has never before been given such an opportunity to serve the public. And wide awake nurserymen everywhere are preparing, so far as possible, to meet the demand that is sure to be made upon them.

"He who plants a tree, plants peace."

The fresh, eternal beauty of evergreens never loses its appeal. Beautiful in the new verdant foliage of spring and summer, and the changing garb of bronzes, golds and purples of autumn and winter, of many varieties, makes them a joy and delight throughout the year. There is such a multitude of both conifers and broadleaf evergreens from which to select.

Surely individual tastes can be fully satisfied with these beautiful blossoms: Rhododendron, gentiana, calluna, abelia, xerophyllum, azalea, cytisus, daboecia, erica, kalmia, genista, camellia, pyracantha, nandina, pieris, tsuerium, vaccinium, mahonia, photinia and many others.

What a marvelous list from which to select, and they last from year to year, growing to perfection with but little care.

Then among the conifers with a splendid range of types and habit of growth from the dainty dwarf to the majestic giant are included: Taxus, abies, pinus, tsuga, picea, thuja, chamaecyparis, thujopsis, juniperus, pseudotsuga, cryptomeria and others.

To these should be added the incomparable evergreen ground covers for slopes, terraces and rockeries: Cytisus, cotoneaster, genista, vinca, ajuga, euonymus, pentstemon, arctostaphylos, linnaea, hedera, juniperus and others.

The Home Is the Bulwark of the Nation

At no time has ornamental gardening been more important. Beautify the home. After war comes peace. A home-loving people is a patriotic people. Let's make American homes the most attractive in the world. Now is the time to plant.



Send in your order now or write for Wholesale Trade List. Many varieties of evergreens, old and new, listed. Shipping cost on lining-out stock paid to all points in the United States.

Wholesale only—mention the American Nurseryman

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Fruit Tree Seedlings and Shade and
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A-No. 1 in grades and quality.
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WHOLESALE GROWERS

Fruit, Shade, Flowering Ornamental
Trees, Fruit-tree Seedlings, Roses, Etc.
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APPLE SEEDLINGS CHINESE ELM SEEDLINGS

1 and 2-year.

Washington Nurseries

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Colorado-grown CHINESE ELM

Hardy strain, seedlings and trans-
plants. Wholesale list on request.

SWINK NURSERY CO.

SWINK, COLO.

turist at the University of Nebraska, announced on January 15 that \$1,000,000 in a federal loan fund will be available to fruit growers who sustained heavy losses in the 1940 Armistice day freeze. Only those persons who were in the orchard business prior to the freeze would be eligible for loans, which would be by the farm credit administration on an amortized basis over an extended period. Such loans would bear four per cent interest. These funds, according to Mr. Hoppert, would be available for preparing the ground for planting and for the actual planting and care of the trees.

THE name of the Japanese Nursery Co., located at Houston and Genoa, Tex., has been changed to the Ellington-Nursery & Floral Co. The officers and personnel remain the same, S. Arai being head.

AFTER the Chicago meeting, Paul Doty, of Doty & Doerner, Portland, Ore., and L. H. Ihrke, of the Verhagen Nursery Co., Scottsville, Tex., started on a two weeks' tour of the southern states, attending camellia shows and photographing flowers.

Ohio Short Course

The thirteenth annual short course for nurserymen, landscape gardeners and arborists, offered by Ohio State University, Columbus, O., January 19 to 21, opened with a registration of 150, representing Ohio, Indiana, Illinois, Kentucky, New York, Maryland, Michigan, Pennsylvania, Missouri and Alabama.

This year's program, with its emphasis on discussion of actual problems, met with great enthusiasm and was viewed as the best yet.

Commercial exhibits included the following: Ariens-Tiller, Vaughan's Flex-tred tractor, Planet Jr. cultivators and Myers sprayers, all distributed by the Farm Supplies & Power Equipment Co., Cleveland, O.; Wick installations for subirrigation of seed flats, by Raybestos-Manhattan Co., Manheim, Pa.; nursery and garden tools, by A. M. Leonard & Son, Piqua, O., and nursery materials, by Burton's Hill Top Nursery, Casstown, O.

The annual banquet was held Tuesday evening, January 20, at the Faculty Club on the campus, with 138 attending. Dr. Chadwick acted as master of ceremonies.

This year's course, which was conducted after the pattern of "Information Please," emphasizing panel discussions of actual problems confronting the trade, was presided over by Dr. L. C. Chadwick. The first morning was devoted to the inspection of experimental work at the university. Of great interest were the propagation studies of the effect of relative humidity and media on rooting, the plant collections of narrow and broad-leaved evergreens, the hardy chrysanthemums, the hedge plots and the many woody materials in the gardens.

Prof. Alex Laurie opened the first meeting January 19 with a discussion of the present-day problems confronting the trade. He pointed out that high-ranking government officials have gone on record as favoring the continued use of ornamentals and ornamental horticulture in the vital problems of maintenance of civilian morale to avoid the hysteria of World war I. There is a great need for combating the public opinion that those things not going directly into

the production of war materials are useless. This is an endeavor in which everyone in the trade must share, especially those coming in direct contact with the client.

Probably the most serious problem, Professor Laurie said, is that of labor, and it will continue to be so. Present help must be maintained as far as possible, especially older men and women where conditions will permit. With this outlook, the need for more efficient management is evident. Professor Laurie pointed out that priorities have practically eliminated burlap and Manila twine, for which suitable substitutes must be found. Lower analysis fertilizers will probably come into the picture because of the need for many of the raw materials for national defense. Greater emphasis will have to be placed on soil preparation and soil-building programs.

Dr. Chadwick reported on the results of experimental studies at Ohio State University during 1941, including fertilization of shade trees in the nursery, outdoor rose studies, propagation studies and species and variety tests for plant hardiness and adaptability. Of particular interest were results of 9-year experiments on fertilization of Moline elms. Results indicate that the time of application is

of little importance in affecting results; rather, it seems to be essentially a problem of moisture relationships. This would indicate the advantage of selling fertilizer jobs whenever available and convenient. Also these tests indicate that a straw mulch, through its effect on soil moisture and temperature, may be as beneficial as a comparatively heavy application of fertilizer. This may be worth remembering in view of the fertilizer situation.

The afternoon sessions were given over to a discussion of machinery and drainage problems by Prof. Virgil Overholt and Prof. R. D. Barden, both of the department of agricultural engineering at the university. In commenting on the future, Professor Barden expressed the opinion that, in general, agricultural industries have received favorable consideration in the matter of allocations and priorities. For 1942, agricultural equipment will be manufactured at approximately eighty-three per cent of that produced in 1940. Certain products, such as power tractors on rubber, will be produced in smaller numbers. Professor Barden emphasizes the need for inspection of present equipment and prompt ordering of necessary replacements and parts. Existing equipment must receive greater care and more efficient use. The discussion period dealt largely with the comparative costs and efficiencies of horse versus tractor.

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For every tillage and cultivation job you'll save hours of labor. In ONE operation you can prepare a completely pulverized level seed bed, thoroughly sown, with weeds and insect life destroyed—mulching, root pruning, complete cultivation are easy for the Ariens. Renovator attachment for Bermuda grass and rebuilding lawns. Operates easily in small space. Write for details and name of nearest distributor so you can arrange for demonstration.

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Amelanchier canadensis	\$0.65	\$2.25
Amelanchier grandiflora	.85	3.00
Amelanchier lavis	.85	3.00
Amelanchier oblongifolia	1.15	3.75
Aronia atropurpurea	.35	1.25
Azalea calendulacea,		
1/4 oz., .50¢; oz., \$1.50.		
Azalea Kaempferi,		
1/4 oz., \$1.50; oz., \$5.00.		
Azalea poukhanensis, from se-		
lected garden specimens,		
1/4 oz., \$2.00; oz., \$6.00.		
Azalea rosea, 1/4 oz., \$1.50;		
oz., \$4.50.		
Azalea Schlippenbachii,		
1/4 oz., .90¢; oz., \$1.50.		
Chamaecyparis Lawsoniana	.90	3.00
Craiegus crenata	.45	1.25
Craiegus Crataegi	.45	1.25
Craiegus mollis, clean	.45	1.25
Craiegus prunifolia	.45	1.25
Craiegus punctata	.45	1.25
Cunninghamia lanceolata	.95	3.00
Cytisus scoparius	.95	3.00
Cytisus scoparius californicus,		
Moonlight Broom	.85	3.00
Cytisus supinus	1.75	6.50
Daphne Mezereum	1.60	5.75
Enonymus Bungeana	.75	2.50
Juniperus virginiana, North-		
ern, clean	.80	3.00
Kerria japonica paniculata	.60	2.00
Laburnum vulgare	1.05	3.75
Larix europaea	1.25	4.50
Magnolia acuminata	.35	1.25
Magnolia Soulangiana	1.55	5.50
Picea Breviflora, oz. \$1.50	4.50	
Picea canadensis albertiana	1.75	6.50
Picea pungens	.80	3.00
Picea pungens glauca	1.20	4.50
Pinus densiflora	1.20	4.50
Pinus ponderosa, Col.	.30	1.10
Pinus resinosa	1.65	6.00
Pinus rigida	.60	2.00
Pinus strobus	.45	1.25
Pinus thunbergii	.85	3.00
Prunus americana	.35	1.10
Prunus myrobalana	.35	1.00
Rhododendron carolinianum,		
1/4 oz., .25¢; oz., \$1.00.		
Rhododendron catawbiense,		
1/4 oz., .35¢; oz., \$1.00.		
Rhododendron maximum,		
1/4 oz., .30¢; oz., \$1.00.		
Rosa multiflora, thornless,		
clean	.50	1.75
Rosa rugosa, clean	.50	2.50
Rosa rugosa alba, clean	.75	3.50
Rosa setigera, dry hips	.35	1.25
Syringa vulgaris, clean	1.25	4.50
Syringa French Hybrids	1.25	4.50
Thuja occidentalis	.60	2.00
Thuja orientalis	.75	2.50
Thuja orientalis conspicua	1.00	3.50
Taxus cuspidata capitata	1.50	6.00
Taxus media Hicksii	1.50	6.00
Tsuga canadensis	1.50	5.50
Viburnum cassiopeoides	.35	1.25
Viburnum dentatum	.25	.85
Viburnum dilatatum, clean	.35	1.25
Viburnum Lentago	.35	1.25
Viburnum Opulus, clean	.95	3.00

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508 S. Dearborn St., Chicago, Ill.

Professor Overholt presented several excellent points on the subject of drainage. In solving drainage problems, the amount of tiling to be installed should be governed by the value per acre of the crop produced and the soil type. In the actual installation of tile the layout should be made as simply as possible, using short mains and long laterals. This will serve to reduce cost and give maximum efficiency, avoiding double drainage. Use as few outlets as possible, for this is where trouble usually occurs. Outlets should be protected from heaving and from entry of small animals into the system. For general landscape work, 4-inch tile is recommended with 1-inch to 2-inch fall per hundred feet. It was pointed out that drainage is a definite aid to the more efficient use of power equipment in the nursery as well as a benefit to the crops growing under conditions of poor drainage.

Many interesting points came out of the discussion of narrow-leaved evergreens at the evening session. The panel discussion was conducted by John Siebenthaler, of the Siebenthaler Co., Dayton, O.; Arthur Palmgren, of the Palmgren Nurseries, Glenview, Ill., and Dr. L. C. Chadwick. It is still rather evident that the nurseryman will have to rely on those few plants which will do well in the particular section of the country in which he is located. However, it would be well to investigate the possibilities of a few of the not so common types and plant some for trial. Some of the hemlocks, such as the Bennett spreading and Laurie types, might be tried in this way. In answer to the objection that these types were difficult to propagate, John Swartley suggested the use of indoleacetic acid at the dilution of forty milligrams per thousand cubic centimeters, soaking the cuttings for twenty-four hours. Winter cuttings taken just after the first of the year stuck in a medium of peat and sand and maintained at a 55-degree to 60-degree temperature (5 degrees higher bottom temperature) should give satisfactory results. For successful propagation of summer cuttings he recommended that cuttings be placed in frames and overwintered there—not potted up.

John Siebenthaler described Juniperus chinensis pfitzeriana compacta as a slower-growing Pfitzer, soft-tex-

NURSERYMEN—

GROWERS—

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—SOIL SPONGE—

AMERICA'S TOP QUALITY PEAT showed the finest response when tested in comparison with leading brands of peat moss and humus products. Not another peat—but a SPECIALIZED PEAT for nurserymen and growers. M. P. has a high nitrogen content, fast bacterial action and gives results at low cost. FREE SAMPLE! You will be amazed at the results. Remem-ber—not another peat—but a SPECIAL-LY PREPARED QUALITY PEAT FOR YOU! ORDER TODAY!



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20-bag lots.....	\$0.90
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Single bag	1.25
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North Dakota and Montana Seeds

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Northern Rocky Mountain Conifer Seeds. North Dakota Juniperus Scopulorum Seeds. Deciduous Tree and Shrub Seeds. Black Hills Spruce Seeds.

Write for trade list.

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Our Pits Compare Favorably
With the Best

HOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

APPLE SEEDS

We accumulate several thousand pounds of apple seeds each fall season. Interested in contracts for all or part of our production.

Valley Evaporating Co.
Yakima, Washington



"UP" TOOL SALES With PHG 45

Master Deal and Display

It provides initial stock of the most asked-for Pruners, Hedge and Grass Shears in America. Free Goods on this \$87.45* deal with sales value of \$59.81* gives an extra 10% profit.

Floor Stand Display makes a self-selling garden center. In full color it can be used complete or as seven separate displays. Other selling helps included.

WRITE FOR FULL INFORMATION AND COMPLETE CATALOGUE.

*Price 10% higher west of Rocky Mountains.

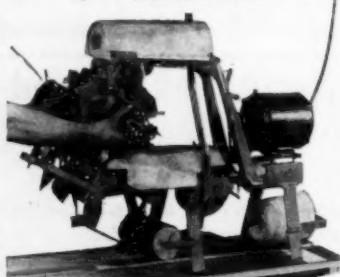
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182 Main St.

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SAVE **SAVE** **SAVE**
Time **Twine** **Labor**
with FELINS ELECTRIC TYER

An ever-paying investment



NEW ELECTRIC

FELINS

Milwaukee

Wisconsin

PLANT WIK

These spun glass wicks have attracted considerable attention as an effective device for semi-automatic watering of seed pans, flats, and pot plants. Extensive experiments made by several well known horticultural experts have proved their value to the commercial grower. Size 3, approx. diameter $\frac{1}{4}$ inch, 15c per foot; roll of 100 feet, \$10.00; 5 rolls, \$45.00.

Henry A. Dreer, Inc.
Philadelphia, Pa.

tured, more compact and without the hollow center. The variety *pfitzeriana nana* is smaller and more globose. Both plants are excellent under Dayton conditions. Mr. Palmgren suggested the use of *Pinus flexilis*. If this form is trimmed severely when in soft growth, it will give a good compact tree. Its soft appearance and needle and bark colors make it an excellent specimen. The need for work on the nomenclature of *taxus* was more than evident in the discussion of these types. A project for this purpose is under way at the Ohio agricultural experiment station at Wooster, under the direction of Dr. Chadwick and a committee appointed by the Ohio Nurserymen's Association. Some of the widespread confusion will be eliminated in the future, it is hoped.

[To be concluded in next issue.]

TENNESSEE NOTES.

Reports from the McMinnville, Tenn., area indicate that, despite the war, business continues good, with carloadings and LCL shipments approximately the same as last year.

Robert W. Boyd, 22-year-old son of F. C. Boyd, of the Boyd Nursery Co., was the first from the McMinnville nurserymen to volunteer in response to his country's call for men. He is in the naval reserve and is reported to be serving on a mine sweeper in the Atlantic coastal region.

James N. Lyon, secretary of Forest Nursery Co., was one of the first to join up with the newly formed Tennessee State Guard and is currently performing his duties as supply officer.

Paul Wilkinson recently visited with Morris R. Cunningham, of the Slatton Nursery Co., before returning home to his duties as manager of the nursery department at Henry Field Seed & Nursery Co., Shenandoah, Ia.

Jesse Ireland was in McMinnville several days before continuing on a trip for his firm, the Onarga Nursery Co., Onarga, Ill. While in McMinnville he inspected a tractor-powered digger invented and built by J. C. Slatton, of the Slatton Nursery Co. The blade for the digger was purchased from the Onarga firm.

James Phifer, formerly of Couch Bros. Nursery Co. and now associated with Baker Bros. Co., Fort Worth, Tex., was in McMinnville several days.

Vernon H. Krider and Clarence

WANT ADS

Help and Situation Wanted
and For Sale advertisements.

\$2.25 per inch, each insertion.

SITUATION WANTED

Landscape architect, young; nursery experience; capable designer and garden club lecturer. Has practical, creative ability in nursery sales promotion and advertising.

Address No. 231, c/o American Nurseryman, 508 S. Dearborn St., Chicago.

HELP WANTED

Experienced nurseryman to take charge of growing and selling at 7-acre city nursery. Give references and salary required.

MALMO NURSERIES,
Seattle, Wash.

HELP WANTED

A keen, smart, ambitious, hard working man to take over a good paying established eastern territory for a large eastern nursery. Please send complete and specific details about yourself when first writing.

Address No. 237, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

HELP WANTED

Perennial Man

Need man to take charge of perennial department of national organization; located in Chicago area; must be able to handle direct sales and mail order correspondence. Position open immediately.

Address No. 230, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

FOR SALE

Nursery located in heart of booming coal fields of West Virginia. General line evergreens, perennials, shrubs, etc. Have 25,000 evergreens lined out; greenhouse 2,100 sq. ft., stocked with 25,000 evergreen cuttings, miscellaneous pot plants. Modern 8-room dwelling; poultry houses, capacity, 800 hens.

Address No. 229, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

FOR SALE OR LEASE

NURSERY

Boysenberry Plantation, Lapeer, Mich. On account of mother's death January 3.

Equipped with one of Michigan's largest irrigation systems; fertile, well tiled soil.

For full particulars, write

Irene Jarvis,
Boysenberry Specialist,
Lapeer, Mich.

Those PLANT BANDS



Easy to Use!

Today, "easy to use" means more to the nurseryman than ever before. In the seed bed, in the field, in the sales room . . . there's a Ball Better Plant Band to speed up your growing and selling operations.

Write for samples or send in your trial order. Glad to quote you on large quantities.

Sizes, Prices and Shipping Weights

Prices given are F.O.B. our Warehouse West Chicago		With Bottoms	Quantity discount of 5% is allowed on orders of 25,000 made up of various sizes. Interested in larger quantities write us.
Wt. per 1000	Wt. per 1000	4x4x4	4x4x4
1½x1½x2½		500...\$5.40	500...\$3.75
500...\$1.40	500...\$2.65	1000...7.30 72 lbs.	1000...10.65 112 lbs.
1000...2.40	1000...5.10	1000...\$4.70	1000...15.25 160 lbs.
2x2x3		6x6x6	6x6x6
500...\$1.55	500...\$3.15	500...\$9.75	500...\$13.20
1000...2.90	1000...6.15	1000...18.30 180 lbs.	1000...26.15 350 lbs.
2½x2½x3		6x6x9	6x7x2½
500...\$1.60	500...\$3.65	500...\$6.40	500...\$8.80
1000...3.10	1000...7.20	1000...12.90 155 lbs.	1000...18.90 250 lbs.
3x3x3		6x6x6	6x6x6
500...\$1.95	500...\$4.05	500...\$9.00	500...\$12.00
1000...3.70	1000...8.98	1000...18.95 250 lbs.	1000...26.95 350 lbs.
3x3x4		6x6x9	6x7x2½
500...\$2.25	500...\$4.50	500...\$10.00	500...\$14.00
1000...4.30	1000...11.98	1000...26.95 350 lbs.	1000...34.95 500 lbs.
4x4x3		6x6x6	6x6x6
500...\$2.10	500...\$4.20	500...\$9.00	500...\$12.00
1000...3.95	1000...8.85	1000...18.85 250 lbs.	1000...26.85 350 lbs.

We are exclusive selling agents for these Bands east of Rocky Mountains, and stock them at West Chicago from where shipments are made. All Canadian orders are handled exclusively for us by Dale Estate, Brampton, Ontario.



OPENING AND FILLING BANDS

A putty knife that can be found in nearly every greenhouse is the handiest way to open these bands. Give the bands a light spray with water before opening. The long spruce fibers of this Ball product prevent breaking at the folds. Every band can be used.

The ease with which these bands are filled is pictured above. If your job requires the larger sizes and you must move your stock, the bands are available with bottoms to eliminate the loss of soil. In one piece, they are readily assembled to receive soil.

Wesdorp, of the Krider Nurseries, Middlebury, Ind., made their annual trip to supervise the loading of cars of stock for the Krider Nurseries.

Ross R. Wolfe, owner of Wolfe's Nursery, Stephenville, Tex., was another visitor in McMinnville recently, calling on all of the nurseries in the area.

R. H. Jones, owner of Jones' Ornamental Nurseries, Nashville, is back at the office after spending four weeks in the hospital recovering from a knee injury received in a fall on the pavement the day after Christmas. While recuperating he carried on his business from a hospital bed, making frequent telephone calls in the direction of a government planting job under way at Savannah, Ga.

Little injury to nursery stock is reported resulting from the recent cold weather, when the mercury dropped to 12 degrees below zero. McMinnville nurserymen state that many items in shrubs, especially privets and Spiraea vanhouttei, are cleaning up rapidly. Fruit trees are also going well.

Richard H. Holmes, Jackson & Perkins Co., Newark, N. Y., stopped in McMinnville on his way back to

Don't Buy Any Nursery Sprayer Until You Have Tried the PARAGON No. 5

With Money-Back Guarantee



We ship, freight paid, complete for 10 days' trial with money-back guarantee, with 25 ft. high-test spray hose, 10-ft. extension spray pipe and 3 nozzles.

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Send Free Catalogue, Price List and Trial Offer on Paragon Sprayers.

Name..... County.....

P. O. State



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Book No. 1. 80 Colored Illustrations. 80¢
Book No. 2. 160 Colored Illustrations. 75¢
Both For \$1.00

PROCESS COLOR PRINTING CO.
701 Searle Bldg. Rochester, N. Y.

Newark after a business trip through Texas and Mississippi.

Richard H. Tacke, landscape gardener, Lexington, Ky., and William E. Strong, Saunders Kill Nursery, Stone Ridge, N. Y., visited J. R. Boyd, of the Forest Nursery Co.

C. B. Howell, Howell Nurseries, Knoxville, was in McMinnville supervising the loading of carloads of stock to be shipped to a government project at Wilmington, N. C.

A storage house, 50x60 feet, located on the Smithville road four miles from McMinnville, has been constructed by the Slatton Nursery Co.

NEW JERSEY MEETING.

[Continued from page 14.]

enough financially to establish a trend away from slap-bang everlasting sameness of inordinately cheap and meaningless plantings. The firms doing good work do not supply enough examples in the less than \$10,000 home field to be discernible in the flood of mediocre use of plants.

"It is not enough that there are firms able and willing to do good work. The way must be found to bring this much-needed service to market. Dr. C. H. Connors says, 'There is no easy and quick way to present to the small home buyer a better style planting. The nurseryman may accomplish something in his selling, but for the most part the answer is in the slow education of the public, a long process, but one of which results are beginning to be seen.' How can this slow education be accelerated?

"We shall deal with the problem of better planting for the home costing less than \$10,000. It is assumed that it is generally agreed that the plantings of homes costing under \$10,000 are in most cases of low grade as to kind and sizes of material used and woefully lacking in good planting composition. It was for this reason your committee was appointed. We confirm this conclusion.

"If the above conclusion is reasonably accurate, it would seem that an enormous potential market awaits the awakening of this giant. While your committee is interested in the profit motive, we are even more concerned with the fact that a deplorable situation exists and that it is the duty of nurserymen to elevate their mar-

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**Five lines, \$1.00,
each additional line, 20 cents,
per insertion.**

Let these little liners move
your stock easily and cheaply.

Peonies: Tree and Herbaceous, best varieties.
Oberlin Peony Gardens, Sinking Spring, Pa.

Mugho Pine, 3-yr. transplants, \$2.50 per 100,
\$20.00 per 1000, here. Many other kinds, priced
reasonably. List on request. Braden Nursery,
Growers of Evergreens, South Windham, Maine.

RHODODENDRONS AND CAMELLIAS.
Cutting-grown, from 2½-in. pots, for growing on.
VAN VEEN NURSERY,
3127 S.E. 45th Ave., Portland, Ore.

NURSERY-GROWN DOGWOOD SEEDLINGS.
Grades, 4 to 6, 6 to 12, 12 to 18 and 18 to 24 ins.
Prices are very reasonable.
NAUGHER NURSERY, CHASE, ALA.

APPLE AND PEAR.
2-yr.-old, 7 to 9 ft.
Big trees, \$25.00 per 100.
J. GERAGHTY NURSERY, GENEVA, N. Y.

SHADE TREES, REAL BARGAIN.
300,000 Chinese Elm trees, sizes from liners to
specimen plants. Write or wire your needs.
TEXAS FLORAL CO., LUBBOCK, TEX.

LINING-OUT STOCK.
You will need lining-out stock in the spring.
Write for trade list, ready to mail.
LAWRENCE O. FESSLER CO.,
Piqua, O.

SPECIAL CLEAN-UP SALE.
Pecan, Apple, Peach, Pear,
Gums and Bulbs.
Ask for price list.
HOME NURSERY, LIBERAL, MO.

25,000 Trees, Shrubs, Raspberry plants, 10,000 lbs.
seeds; per lb.; Kentucky Coffee Beans, 35c; Ca-
talpa Speciosa, 40c; Allianthus 40c; Syringa, 30c;
Regels Privet, also Amur River North,
Schreder Nursery Co., Granite City, Ill.

A few carloads for spring sale, per 100: Moun-
tain Ash, 5 to 6 ft., \$5.00; Norway and Lombardy
Poplar, 1½ to 2-in., \$35.00; American Elm, 1½ to
2-in., \$55.00; Austrian Pine, 2½ to 8 ft., B&B,
\$150.00; Scotch Pine, 2½ to 3 ft., B&B, \$120.00, 3 to 4
ft., \$150.00. Pequot Nursery, Pequot Lakes, Minn.

COTONEASTER HUMIFUSA.
T. \$10.00 per 100 baled
TT, branched 15.00 per 100 baled
TTT, branched 20.00 per 100 baled
THEO. ALBERT NURSERY,
R. 3, Box 164.

LINING-OUT STOCK.
Pseudotsuga, Douglasia, Glauca (Colorado seed)
seedlings, 3 to 5 ins., thinnily planted in deep beds,
good roots: 1000, \$18.00; 5000 or more, \$15.00 per 1000.
SUNCREST EVERGREEN NURSERIES,
Johnstown, Pa.

JUNIPERUS SCOPOLIFERA.
Seedlings, 2-yr.-old, average 6 to 9 ins., bed
run, \$6.00 per 100, \$50.00 per 1000. B & B, 2 to
2½ ft. and 2½ to 3 ft. Prices on request.
TRILLIUM EUROPAEUS.
Field-grown, \$1.50 per 10, \$12.00 per 100.

DIAL NURSERY,
Colorado Springs, Colo.

DECIDUOUS SHRUBS.
Aronia, Brilliant, 18 to 24 ins. 15c
Forsythia Intermedia, 18 to 24 ins. 9c
Hamamelis Virginiana, 18 to 24 ins. 15c
Philadelphia Grandiflora, 2 to 3 ft. 12c
Rhamnus Frangula, 3 to 4 ft. 18c
CALL'S NURSERIES,
Established 1871. Perry, O.

LINING-OUT STOCK.
Arborvitae Barker, Berckmanns, Bonita,
Rosedale, Goldspire, Europa, Dwarf Golden,
\$7.00 per 100, \$60.00 per 1000.
Arizona Cypress, \$6.00 per 100, \$50.00 per 1000.
Italian Cypress, \$8.00 per 100, \$75.00 per 1000.
Junipers: Fitzar, Spiny Greek, Andorra, Ki-
jimot, Irish, \$8.00 per 100, \$75.00 per 1000.
Nandina Domestica, \$6.00 per 100, \$50.00 per
1000.

Photinia Serrulata, 3-in. pots, \$12.50 per 100.
Abelia and Euonymus Japonica, \$5.00 per 100.
Pyracantha Lalandii and Yunnanensis; Waxleaf
Ligustrum; Gold Variegated and Silver Varie-
gated Euonymus, \$6.00 per 100, \$35.00 per 1000.
Grown in 2-in. rose pots unless otherwise noted.
We also have the above plants field-grown at
reasonable prices. Write for price list.
WISE ADKISSON, GREENVILLE, TEX.

AMERICAN NURSERYMAN

PEONIES, IRISES AND HEMEROCALLIS.
Spring shipments (March and April).
Quality stock. Attractive prices.
Send for large wholesale catalogue, free.
C. F. WASSENBERG, R-6, VAN Wert, O.

WANTED.
Tree Digger Blade, from 24 to 28 ins. wide and
24 to 28 ins. deep, ¾-in. steel, either new or good
condition used blade.
WAYNESBORO NURSERIES,
Waynesboro, Va.

SHADE TREES.
SPECIMEN APPLE, 1½ to 2-in. caliper, 7 to
8 ft., \$10.00 per 10.

ASH, EUROPEAN MOUNTAIN, 6 to 8 ft.,
\$9.00 per 10.

ASH, AMERICAN WHITE, 8 to 10 ft., \$8.50
per 10.

ELM, CHINESE, 6 to 8 ft., \$7.50 per 10; 8 to
10 ft., \$10.00 per 10.

FLOWERING CRAB, 4 to 6 ft., \$5.00 per 10.

NORWAY MAPLE, 8 to 4-in. caliper, \$37.50
per 10.

LINDEN, LITTLELEAF, 2 to 2½-in. caliper,
\$27.50 per 10.

WEeping CHERRY, Single Pink, 5 to 6-ft.
stems, \$25.00 per 10; Double Pink, 5 to 6-ft.
stems, \$30.00 per 10.

Send us your want list for quotations on other
sizes, varieties and quantities. Also Fruit Trees.
WAYNESBORO NURSERIES, INC.,
Waynesboro, Va.

LINING-OUT YEW.
TAXUS BACCATA (English Yew)

	10	100	1000
4 to 6 ins., trans.	\$1.00	\$ 7.50	\$ 70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.50	12.50	110.00

TAXUS BACCATA REPENDANS (Spreading
English Yew)

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.25	10.00	90.00

TAXUS BACCATA REPENS (Spreading Japanese Yew)

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.25	10.00	90.00

TAXUS CUSPIDATA CAPITATA (Upright
Japanese Yew)

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.25	10.00	90.00

TAXUS CUSPIDATA HICKSII (Hick's Yew)

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.25	10.00	90.00

TAXUS MEDIA VERMEULEN

	10	100	1000
4 to 6 ins., trans.	1.25	10.00	90.00
6 to 8 ins., trans.	1.50	12.50	110.00

TAXUS MEDIA BROWNL

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00

Large wholesale catalogue upon request.
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Pittsville, Md.

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NORWAY MAPLE

	10	100	1000
4 to 5 ft., trans.	\$2.00	\$15.00	\$135.00
5 to 6 ft., trans.	2.50	20.00	175.00
6 to 8 ft., trans.	3.00	25.00	235.00

AMERICAN ARBOR-VITÆ

	10	100	1000
4 to 6 ins., trans.	.85	6.00	50.00
6 to 8 ins., trans.	1.00	7.00	65.00

GLOBE ARBOR-VITÆ

	10	100	1000
4 to 6 ins., trans.	1.00	7.50	70.00
6 to 8 ins., trans.	1.25	10.00	90.00
8 to 10 ins., trans.	1.50	12.50	110.00

ORIENTAL ARBOR-VITÆ

	10	100	1000
6 to 8 ins., s.	3.00	25.00	250.00
8 to 12 ins., s.	4.00	35.00	350.00

JUNIPERUS VIRGINIANA

	10	100	1000
6 to 8 ins., trans.	5.00	40.00	400.00

RETINOSPORA OBTUSA NANA

	10	100	1000
4 to 6 ins., trans.	1.50	12.50	110.00

WEEPING WILLOW (green bark)

	10	100	1000
3 to 4 ft.	4.00	35.00	350.00
4 to 5 ft.	5.00	40.00	400.00
5 to 6 ft.	6.00	50.00	500.00

GOLDEN BARE WILLOW, at same prices

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4,500 Nurserymen

will see your Want List or your
prices on Long Items if you list
them in the

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MULCHES WEEDS
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Costs less.
Weighs less.
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No increase in
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Salem Weeder

Light, Strong, Practical.
 $\frac{1}{8}$ " x 1" Tool steel blade,
riveted to malleable shank.
standard 4-ft. hoe handle;
3, 4, 5 or 6 inches wide.
By mail,
postpaid.....

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FULLER WHEEL HOE CO.
South Hamilton, Mass.

TWINE ROPE

*Special Cordage
for Nursery Work*

J. E. FRICKE CO.

40 North Front Street

PHILADELPHIA, PA.

ket. It is our duty to put our fine products to their best use and to wipe out the primitive practices of the burning pile and the peddler outlet. We strongly recommend that all landscape planters doing commendable work be given better support.

"We are fully aware that the market herein mentioned lacks appreciation of fine plants and good composition, at least to the point of paying a reasonable price. Alert responsiveness may be defined as discrimination and recognition of beauty. Any large-scale cultivation of discrimination and appreciation is, of course, too large a problem for nurserymen alone. We can make an important contribution, however. Your committee from its investigations and studies offers the opinion that it is neither necessary nor wise to attempt to deal with the entire market at one time. There is a smaller percentage of homeowners, say five per cent, who are ready for better planting, but they do not know how to proceed. Our activities ought to be directed to placing in their hands definite and specific information on how to go about it.

"Your committee recommends that we do just that. That we prepare a bulletin in collaboration with New Jersey agricultural experiment station and New Jersey department of agriculture. This bulletin to be amply illustrated with deplorable plantings and feasible, better planting. There shall also be set forth in concise form, step by step, the information needed to secure better planting.

"We must devise ways and means of getting these bulletins in the hands of builders, buyers and prospective homeowners. We suggest that such educational market promotion be considered as part of our future advertising. Last, but not least, we must deal with the problem of variation in the quality of plantings offered by our members. We must not offer a dried herring and call it better planting."

Mr. Jennings asked the verdict of the members on the committee's conclusions and its proposal. A vote of thanks was given the committee, coupled with instructions to proceed with plans for the pamphlet suggested, an outline of which was submitted by Mr. Jennings.

When he asked Dr. C. H. Conners' comment on the project, the

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for Grafting
Budding Pruning

IMMEDIATE DELIVERY

(Subject to
prior sale)



Special
Prices Post-
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	Each	Dozen
No. 7303	\$1.65	\$13.20
Budding and Pruning, 4 $\frac{1}{4}$ ins. long, 2-in. blades, bone stag handle. (Illus.)		
No. H1001	\$1.50	\$13.00
Pruning, one large blade with Coco Bola handle drilled for cord.		
No. 1361	\$1.35	\$12.60
Large Pruning, 4 $\frac{1}{4}$ ins. long, one large blade, Coco Bola handle.		
No. 1354W	\$1.65	\$13.20
Budding, 4 ins. long, flat-sided blade with bark loosener on back, white celluloid handle.		
No. 1354B	\$1.35	\$12.00
Grafting, 4 ins. long, flat-sided blade, black celluloid handle.		
No. S1944	\$1.10	\$10.80
Florist Pruning, nickel shackle, 3 $\frac{1}{4}$ ins. long, one small blade, ivory celluloid handle.		
No. 1254	\$0.55	\$5.40
Florist Pruning, without shackle, 3 $\frac{1}{4}$ ins. long.		

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ATTENTION NURSERYMEN!



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SOAP
SPRAY**

Use 1 part with 25 to 40 parts of water

Ask your nearest seedman, or
write for literature.

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178 Purchase St. Boston, Mass.



You do just that—with more satisfaction—when you use

CARPENTER NURSERY TWINES

You get Length and Strength, and Dependability, and Smoothness. Twines that hold when they come from Carpenter. Long experience in supplying Nurserymen backs our specialization in this line. From our stocks pick the twines you want in . . .

JUTE, JAVA, SISAL, COTTON MANY OTHER TYPES



Tell us your needs. Or send us samples of twines you are using. Let us quote you CARPENTER'S LOW PRICES for highest quality. No obligation.

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Domestic PEAT MOSS For All POULTRY and AGRICULTURAL REQUIREMENTS

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PEAT SALES CO.**
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SPHAGNUM MOSS

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Larvacide Right in bins, deep frames and compost piles. Saves cost of new soil; cuts hand weeding cost and controls most weed seeds, nematodes and fungi that cause damping-off. Write

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Horticultural department head offered suggestions and added the observation that good landscaping involved the use of plants in their proper place and the employment of imagination by the designer.

Russell Bettes asserted that poor salesmanship was responsible for much poor landscape planting, because the nurseryman undersold his prospect for fear of losing the job to a competitor who might devise a planting at a lower price. Mr. Bettes had been asked to submit a list of dwarf or semidwarf plants to be recommended for landscape use in New Jersey, ten each of conifers, broad-leaved evergreens and deciduous shrubs. The list follows:

CONIFERS.

Taxus cuspidata nana.
Chamaecyparis obtusa gracilis nana.
Pinus mugo mughus.
Taxus media hicksii.
Thuja occidentalis rosenthalii.
Juniperus chinensis pfitzeriana.
Picea abies canariensis.
Juniperus virginiana pyramidalis.
Picea glauca albertiana.
Thuja occidentalis globosa.

BROAD-LEAVED EVERGREENS.

Pieris japonica, or P. floribunda.
Ilex crenata convexa.
Buxus sempervirens suffruticosa.
Berberis julianae.
Rhododendrons, low-growing.
Cotoneaster divaricata.
Azaleas, evergreen.
Mahonia aquifolium.
Ilex opaca.

DECIDUOUS SHRUBS.

Azalea kaempferi and hybrids.
Deutzia gracilis rosea.
Syringa vulgaris.
Azalea arboreascens.
Euonymus alatus compactus.
Viburnum tomentosum.
Spiraea bumalda froebeli.
Philadelphia virginalis Bouquet Blanc.
Vaccinium corymbosum.
Lonicera fragrantissima.

ASSOCIATED ARCHITECTS.

Merger of six Chicago firms' facilities under the name of Associated Landscape Architects, as reported in the preceding issue, is for large defense projects only.

Each member firm of this group is still carrying on its individual practice. The firms are C. B. Andrews, Fitzgerald & Atkinson, Robert Bruce Harris, Ralph Rodney Root, Simonds West & Blair and F. A. Cushing Smith & Associates.

BIDS were received January 28 at the office of the state highway department, Columbia, S. C., for nursery stock to be used in four roadside improvement projects.

PLATE BOOKS

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Book A. Illustrates in full color 235 standard nursery items, brief description, substantially bound. Price in small lots, 65c each.

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PLANT PATENT NO. 315

A New Hybrid Daphne of Great Merit

This fragrant and easy-to-grow Hybrid Daphne originated in England a number of years ago. It received highest honors from the R. H. S. of Great Britain when it was first shown in London. The starlike blush-white flowers are as deliciously fragrant as Daphne Cneorum. They occur in quantities during May and June along the upper eight or ten inches of each branch, the flowering time lasting a month or more. The foliage is rich, dark green, giving the effect of Boxwood. It remains on the plant well into the winter. Reports from southern test gardens are that it remains evergreen where winter weather is not too severe. The original stock plants in our nursery are about 2½ feet high, and about as broad. These were imported by us six years ago, and arrived with bare roots. Our experience is that dormant young stock may be shipped and transplanted bare root with excellent results.

WHOLESALE PRICES.	DORMANT STOCK, BARE ROOT.
	12 to 15 inches, bare root, \$40.00 per 100.
	15 to 18 inches, bare root, \$50.00 per 100.

No bare root plants of the above two sizes are shipped after April 1.



Detail of flowers of spike of Daphne Somerset

WHOLESALE PRICES		
15 to 18 inches, B&B		
Each	Doz.	100
\$1.00	\$10.00	\$75.00
18 to 24 inches, B&B		
Each	Doz.	100
\$1.50	\$15.00	\$100.00
24 to 30 inches, B&B		
Each	Doz.	100
\$2.00	\$20.00	\$150.00

RECOMMENDED RETAIL PRICES		
15 to 18 inches, B&B		
Each	Doz.	100
\$2.00	\$20.00	
18 to 24 inches, B&B		
Each	Doz.	100
\$3.00	\$30.00	
24 to 30 inches, B&B		
Each	Doz.	100
\$4.00	\$40.00	

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Root-cutting plants. Rust-free.

	Per 100	Per 1000	Per 5000
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Now made in four sizes and two grades, comparable in soil capacity to 6-in., 7-in., 8-in. and 9-in. clay pots. Prices as low as \$18.50 per 1000.

Cheap in price (can be given away with the plant). Non-Porous (slow to dry out), produce a better plant than a clay pot, make better satisfied customers and more profit for the Florist and Nurseryman.

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REPORTED BY PROMINENT GROWERS

HEMLOCKS — Forest seedlings treated with TRANSPLANTONE — losses less than 5 per cent against losses up to 80 per cent without treatment. Three years of tests—reports from dozens of users.

PIN OAK AND SWEET GUM — Several nurseries report less than 1 per cent loss of treated trees last spring against 25 per cent loss without treatment under the same conditions. Tests were made on hundreds of trees.



Pine Tree Ready for Transplanting

AZALEAS, RHODODENDRONS AND HOLLIES — "Didn't lose one azalea under severe summer conditions." "Rhododendrons showing chlorosis after planting brought back to vivid green with TRANSPLANTONE." "Hollies apparently dead regained full vigor by watering with TRANSPLANTONE."

DAY LILIES — Faster growth, less mortality reported by specialists from treatment of clumps after division.

PERENNIALS — Wayside Gardens say in their 1941 catalogue, "We find TRANSPLANTONE indispensable and use it on all difficult to transplant trees and shrubs."

TREE MOVING — Wisconsin Tree Expert Co., Wausau, recommends and uses TRANSPLANTONE for all tree moving, particularly shade trees.

ALPINE PLANTS AND WILD FLOWERS — Especially the wild orchid (*cypripedium*) and arbutus (*Epigaea repens*) show marked stimulation to this treatment.

ROSES — Thousands of satisfied users at the New York, Philadelphia, Boston and Chicago Flower Shows reported remarkable results on their roses from regular treatments with TRANSPLANTONE.

IN THE CUTTING BED — Where cuttings must stay in the cutting bed for more than two months, a weekly watering with a solution of one level teaspoon of TRANSPLANTONE in a gallon of water will keep the weaker cuttings alive and increase greatly the percentage of successful rooting. This is true whether you use ROOTONE or not.

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For woody cuttings, where you want a faster working powder, use ROOTONE No. 10—a stronger concentration than regular ROOTONE. Especially suited to azaleas. Two ounce jar, \$2.00—one pound can, \$10.00. Send your remittance to your dealer or to

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Can you afford to pass up TRANSPLANTONE in your nursery practice?

One pound can, \$4.00—makes 160 to 1600 gallons of solution for transplanting.
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Horticultural Division A-35

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